UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

29 August 2011

Sent via FAX (513)825-7495
Mr. Robert Galvin
Chief Financial Officer
EQM Technologies and Energy
1800 Carillon Blvd.
Cincinnati, OH 45240

Dear Mr. Galvin:

The US Environmental Protection Agency needs some clarifications of EQM's testing activities conducted in 2009 and 2011 at the West Virginia Alloy facility in Alloy, WV. Your testing reports provide no point of contact so I have attempted to get some clarifications by email through your "ask eq" mailing address and by contacting by email Mr. Tom Gerstle, on 8/22/11. I also attempted to contact a Mr. Robert McCullough, who is listed as a point of contact by "ask eq" but apparently he is no longer associated with EQM. Those emails and the issues needing clarification are attached as enclosure (1)-two pages. I would appreciate if someone from Environmental Quality Management could contact me and provide clarifications to the issues listed in enclosure (1).

If anyone from EQM wished to speak with me by telephone, I can be reached at 215-814-3171.

Sincerely,

Jerry Curtin
US EPA Air Enforcement Officer

EQM testing at the West Alloy Facility in Alloy, WV
Jerome Curtin to: TGerstle 08/22/2011 10:58 AM
Bcc: Pilla.Chris

Tom

Could you direct this inquiry to the party at EQM who may be able to address it?

To Environmental Quality Management, Inc.

I am an Air Enforcement Officer with the US EPA Regjon 3 in Philadelphia. EPA, as a routine matter, reviews the stack tests done at facilities located in our region and asks pertinent questions. One of those facilities reviewed by EPA is the West Virginia Alloy (WVA) Company (formerly Elkem) of Alloy, WV. Environmental Quality Management has conducted at least 3 stack tests of baghouse 15 of WVA in the last 3 years (May 7, 2009, August 9, 2009, June 14, 2011). After reviewing the EQM test reports, EPA did have a couple of question about the EQM testing and would appreciate it if EQM could clarify as follows:

1. In the May 7, 2009 EQM report, NOx and VOCs were tested at the baghouse inlet and SOx was tested at the baghouse outlet. Can EQM confirm these locations? In the June 14, 2011 EQM test report, NOx, VOC and SOx were tested at the baghouse inlet. Can EQM confirm these locations? Why was testing done at different locations in 2009 than in 2011 for those 3 criteria pollutants?

2. EQM conducted another test at the WVA baghouse 15 on August 15, 2009. Could you FAX EPA a copy of those testing results (215-814-2134) and confirm the location of the testing for each pollutant tested (baghouse inlet or outlet).? If testing on that date was not conducted for SOx, was there a reason SOx was not tested? If testing locations for each pollutant on August 15, 2009 were different from May 7, 2009 testing, could you explain why?

3. Has EQM conducted any other stack tests in the last 3 years at WVA's baghouse 15 other than the 3 periods cited above (May 7, 2009, August 9, 2009, June 14, 2011)? If so, EPA would like a copy faxed to us of the test results of any other testing event. Please also confirm the baghouse location where each criteria pollutant was tested.

If you would like to speak with me by telephone, I'm at 215-814-3171. I appreciate your assistance.

Thank You

Jerry Curtin, Air Enforcement Officer
US Environmental Protection Agency
1650 Arch St. (3AP20)
Philadelphia, PA 19103
215-814-3171
FAX 215-814-2134

WVA Manufacturing, LLC
P.O. Box 248
Route 60 E
Alloy, WV 25002-0248
Phone: 304-779-3200
Fax: 304-779-3297
www.glbsm.com

March 18, 2010

Certified Mail No. 7009 2820 0000 6316 6088
Associate Director
Office of Enforcement and Permits Review
(3AP12)
USEPA, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Re: Permit Nos. R30-01900001-2006 and R30-01900092-2006

Dear Director:

As per conditions 3.5.5 and 3.5.6 of the above mentioned permits, please find enclosed the corrected Title V Operating Permit Annual Compliance Certification, Semi-Annual Monitoring Report and Deviation Reports for these facilities for reporting year 2009.

If there are any questions or comments, please let me know.

W. R. Wagner, II
Manager-SHEA
WV Alloy, Inc.
PO Box 158
Alloy, WV 25002

Cc: Certified Mail No. 7009 2820 0000 6316 6095
Director-WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

WV Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Telephone Number: (304) 926-0475
Fax Number: (304) 926-0478

TITLE V OPERATING PERMIT ANNUAL COMPLIANCE CERTIFICATION[1]

Name of Permittee: WVA Manufacturing, LLC.	Name of Facility: same as permittee
Permit Number: R30-0190001-2006	AFS Plant ID Number: 03-54-01900001
Mailing Address: Rte. 60 East PO Box 248 Alloy, WV 25002	Contact Person: Roger Wagner Title: Manager-SHEA Telephone: (304) 779-3379
For the reporting period beginning 01/ 01/ 2009 and ending 12/ 31 /2009	

Based upon the specific test methods, monitoring, recordkeeping and/or reporting required under the permittee's Title V Operating Permit and any other information reasonably available, I, the undersigned, hereby certify for the reporting period stated above:

a. The permittee has been in compliance with all General Conditions 2.3.2, 2.3.3, 2.5.1.a and b, 2.10, 2.11.2, 2.12, 2.13.1, 2.14, 2.15, 2.19, 2.20, and 2.25 of the permittee's Title V Operating Permit, except to the extent that the permittee's Title V Operating Permit and underlying rules explicitly provide for exception periods or where deviations have been identified in either the 1st Half Semi-annual Monitoring Report previously submitted or the 2nd Half Semi-annual Monitoring Report attached to this certification;

b. I have reviewed all facility-wide and source specific requirements of the permittee's Title V Operating Permit, and certify compliance of all air pollutant emitting equipment and processes subject to facility-wide and source specific requirements of the permittee's Title V Operating Permit with all such requirements including all emission limitations and standards set forth in the referenced permit, except to the extent that the permit and underlying rules explicitly provide for exception periods or where deviations have been identified in either the 1st Half Semi-Annual Monitoring Report previously submitted or the 2nd Half Semi-Annual Monitoring Report attached to this certification.

c. Based on information and belief formed after reasonable inquiry, the statements and information in this document and attachments are true, accurate, and complete.[1]

Responsible Official[2]	
Name: Steve Pralley	Title: Plant Manager
Signature:	Date:

Note: Please check all required attachments included with this Annual Compliance Certification.

DAQ	X☐ Form A – Annual Compliance Certification	X☐ Semi-Annual Monitoring Report for the 2nd Half (July 1st through December 31st)
EPA	X☐ Form A – Annual Compliance Certification	X☐ Semi-Annual Monitoring Report for the 1st Half (January 1st through June 30th) 2nd Half (July 1st through December 31st)

[1] Please note that the West Virginia Code states that any person who knowingly misrepresents any material fact in an application, record, report, plan or other document filed or required to be maintained is guilty of a misdemeanor and may be subject to fines and/or imprisonment in accordance with W.VA. Code §22-5-6(b).

[2] A Responsible Official as defined by 45CSR§30-2.38. must sign this certification.

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC Facility: Alloy plant	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	1.1	In compliance	All point sources listed are up-to-date	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	1.2	In compliance	All permits listed are active	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.1	In compliance		☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.2	In compliance		☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.3	In compliance	Permit is active, renewal process will start by June 4, 2010.	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC			Facility: Alloy plant		Permit Number: R30-01900001-2006	
For the reporting period beginning 01/01/2009 and ending 12/31/2009						
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	2.4	In compliance	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.5	In compliance	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.6	In compliance	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.7	In compliance.	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.8	In compliance.	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

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For the reporting period beginning 01/01/2009 and ending 12/31/2009

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	2.9	In compliance.	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.10	In compliance	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.11	In compliance.	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.12	In compliance.	Not required.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.13	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

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Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	2.14	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.15	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.16	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.17	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.18	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006
For the reporting period beginning 01/01/2009 and ending 12/31/2009		

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	2.19	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.20	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.21	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.22	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.23	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

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Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006
For the reporting period beginning 01/01/2009 and ending 12/31/2009		

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	2.24	In compliance.		fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	2.25	In compliance.		fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
				☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
				☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
				☐ Yes ☐ No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

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Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/ 01/2009 and ending 12/31/2009

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	3.1.1	Staff Meetings discuss these types of issues.	No open burning took place	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.3	Staff Meetings discuss these types of issues.	No reportable asbestos abatement performed	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.4	No complaints or occurrences reported.	No objectionable odors released from facility	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.8	As per plant requirement, verified by discussion with Maintenance personnel.	The plant recovered/recycled all CFCs as required	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.9	Letter received from EPA.	The plant's RMP is completed to USEPA's completion check dated 6/17/04, anniversary date 6/17/2009. No. 4 Boiler is currently inactive and not operating, RMP is not required at this time.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

[1]Include any other information reasonably available or otherwise known relating to the status of compliance.

Form A - Annual Compliance Certification		
Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006
For the reporting period beginning 01/01/2009 and ending 12/31/2009		

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	3.1.10	CEMs unit installed.	Followed standard requirements of the NOx Budget Trading program. No. 4 Boiler did not operate in 2009.	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
001-08	3.1.13	Visible emissions.	Water is used to control emissions. No emissions associated with this emission unit based on visual emissions.	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
004-09 S7	3.1.13	Visible emissions.	Visible emissions in accordance with Method 22.	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
004-09 S14	3.1.13	Visible emissions.	Visible emissions in accordance with Method 22.	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
DS-1	3.1.13	Visible emissions.	Visible emissions in accordance with Method 22.	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

[1]Include any other information reasonably available or otherwise known relating to the status of compliance.

Form A - Annual Compliance Certification		
Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009						
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
DS-2	3.1.13	Visible emissions.	Visible Emissions as per method 22.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.14	Visible emissions.	VEs as per Method 22.	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.15	All stack test protocols were approved by the WVDEP-DAQ prior to being run.	All units that have been stack tested meets this requirements. A stack test was performed on No. 15 Fce. (003-07) and it's associated baghouse emission unit 0013 in June 2009, there was an equipment error so the stack test was re-done in August 2009.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.16	Visible emissions in accordance with RM9 or Method 22.	All manufacturing processes that generate fugitive particulate matter are equipped with systems to minimize fugitive particulate emissions.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.17	Visible emissions in accordance with RM9 or Method 22.	The majority of the plant's roads are paved. The plant utilizes a street sweeper to reduce emissions. Visible emissions are performed on the roads as required by the plant's Title V permit.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

[1]Include any other information reasonably available or otherwise known relating to the status of compliance.

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Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009						
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	3.1.18	VEs in accordance with RM9.	Poling emissions do not exceed five (5) minutes in duration. Method 9 Visible emissions are performed on all operating plant furnaces	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.19		No application has been submitted to date.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.20		Maintenance activities follow good air pollution control practices. Any exceptions to the plant's baghouses are listed elsewhere in this report.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.21		No alternative VE standards have been requested at this time	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.1.22	In compliance.		☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

[1]Include any other information reasonably available or otherwise known relating to the status of compliance.

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC		Facility: Alloy plant		Permit Number: R30-01900001-2006	
For the reporting period beginning 01/01/2009 and ending 12/31/2009					
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
0005	3.2.1	VEs in accordance with RM9 or Method 22.	Visible Emissions	☐ Yes fl☐ No	(5) 1st half ,(0) 2nd half	fl☐ 1st Half (January 1st through June 30th) fl☐ 2nd Half (July 1st through December 31st)
0006	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	☐ Yes fl☐ No	(1) 1st half, (3) 2nd half	fl☐ 1st Half (January 1st through June 30th) fl☐ 2nd Half (July 1st through December 31st)
0007	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	☐ Yes fl☐ No	(8) 1st half, (1) 2nd half	fl☐ 1st Half (January 1st through June 30th) fl☐ 2nd Half (July 1st through December 31st)
0008	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	☐ Yes fl☐ No	(1) 1st half, (0) 2nd half	fl☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
0012	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	☐ Yes fl☐ No	(2) 1st half, (0) 2nd half	fl☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

[1]Include any other information reasonably available or otherwise known relating to the status of compliance.

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC			Facility: Alloy plant.		Permit Number: R30-01900001-2006	
For the reporting period beginning 01/01/2009 and ending 12/31/2009						
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
0013	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	☐ Yes fl No	(1) 1st half, (0) 2nd half	fl☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
003-01	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	☐ Yes fl☐ No	(0) 1st half, (1) 2nd half	☐ 1st Half (January 1st through June 30th) fl☐ 2nd Half (July 1st through December 31st)
003-03	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
003-04	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
003-06	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	☐ Yes fl☐ No	(0) 1st half, (1) 2nd half	☐ 1st Half (January 1st through June 30th) fl☐ 2nd Half (July 1st through December 31st)
003-07	3.2.1	Visible emissions in accordance with RM9 or Method 22.	Visible Emissions	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
0005	3.2.2	Maintained on plant's computer system.	Instrumentation is maintained to track pressure drop, records are kept showing all maintenance work performed including frequency of bags capped/replaced. Any exceptions to the plant's baghouses are listed elsewhere in this report.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
0006	3.2.2	Maintained on plant's computer system.	Instrumentation is maintained to track pressure drop, records are kept showing all maintenance work performed including frequency of bags capped/replaced. Any exceptions to the plant's baghouses are listed elsewhere in this report.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
0007	3.2.2	Maintained on plant's computer system.	Instrumentation is maintained to track pressure drop, records are kept showing all maintenance work performed including frequency of bags capped/replaced. Any exceptions to the plant's baghouses are listed elsewhere in this report.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
0008	3.2.2	Maintained on plant's computer system.	Instrumentation is maintained to track pressure drop, records are kept showing all maintenance work performed including frequency of bags capped/replaced. Any exceptions to the plant's baghouses are listed elsewhere in this report.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
0012	3.2.2	Maintained on plant's computer system.	Instrumentation is maintained to track pressure drop, records are kept showing all maintenance work performed including frequency of bags capped/replaced. Any exceptions to the plant's baghouses are listed elsewhere in this report.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

[1]Include any other information reasonably available or otherwise known relating to the status of compliance.

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
0013	3.2.2	Maintained on plant's computer system.	Instrumentation is maintained to track pressure drop, records are kept showing all maintenance work performed including frequency of bags capped/replaced. Any exceptions to the plant's baghouses are listed elsewhere in this report.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3..3	Stack test data.	Stack test performed on No. 4 Boiler on January 25, 2007. A stack test was performed on No. 15 Fce. (003-07) and it's associated baghouse emission unit 0013 in June 2009, there was an equipment error so the stack test was re-done in August 2009.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.4	Stack test data.	All monitoring information is up-to-date, records are maintained as required and there have been no odor complaints.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.5	All required reports are submitted in a timely fashion and signed by an appropriate responsible official.	In compliance	☒ Yes ☒ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	3.6		None to date.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

[1] Include any other information reasonably available or otherwise known relating to the status of compliance.

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	3.7		In compliance	☐ Yes ☐ No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
001-06	4.1.1	Stack Test of January 25, 2007 supports this. Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
001-06c	4.1.2	Stack test of 12/16/98 supports this. Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.3	Previous laboratory analysis supports this. Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.4	Boiler No. 4 did not operate in 2009.	In compliance	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	4.1.5	Boiler No. 4 did not operate in 2009.	In compliance	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.6	Low NOx burners installed and maintained since October 2003. Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.7	Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.8	Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.9	No work has been performed on these units.	In compliance	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006

For the reporting period beginning 01/01/2009 and ending 12/31/2009						
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	4.1.10	NOx trading program utilized.	In compliance	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.11	NOx trading program utilized.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.12	Boiler No. 4 did not operate in 2009.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.13	Boiler No. 4 did not operate in 2009.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.14	Boiler No. 4 did not operate in 2009.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006
For the reporting period beginning 01/01/2009 and ending 12/31/2009		

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	4.1.15	Boiler No. 4 did not operate in 2009.	In compliance	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.16	The ESP is run when the Boiler is operated. Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.17	Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.18	Stack test data. Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.19	Stack test data. Boiler No. 4 did not operate in 2009.	In compliance	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006
For the reporting period beginning 01/01/2009 and ending 12/31/2009		

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	4.1.20	None requested during reporting period. Boiler No. 4 did not operate in 2009.	In compliance	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.21	No requirement for this reporting period. Boiler No. 4 did not operate in 2009.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.1.22	No violations during reporting period. Boiler No. 4 did not operate in 2009.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.2	Boiler No. 4 did not operate in 2009.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4..3	No testing required during reporting period. Boiler No. 4 did not operate in 2009.	In compliance. Stack Test of January 25, 2007supports this.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006
For the reporting period beginning 01/01/2009 and ending 12/31/2009		

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	4.4	Boiler No. 4 did not operate in 2009.	In compliance	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.5	Boiler No. 4 did not operate in 2009.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	4.6	NA	NA	☐ Yes ☐ No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	5.1	Operational data.	In compliance. All sections are being adhered to.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	5.2	Operational data.	In compliance. All sections are being adhered to.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006
For the reporting period beginning 01/01/2009 and ending 12/31/2009		

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	5.3	The last stack test was performed on August, 2009.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	5.4	Operational data.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	5.5	Operational data.	In compliance.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	5.6	NA	NA	☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	6.1	Operational data.	In compliance. All sections are being adhered to.	☒ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

Form A - Annual Compliance Certification

Permittee: WVA Manufacturing, LLC	Facility: Alloy plant	Permit Number: R30-01900001-2006
For the reporting period beginning 01/01/2009 and ending 12/31/2009		

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status[1]	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
	6.2	VEs in accordance with RM9 or Method 22.	In compliance. All sections are being adhered to.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	6.3		In compliance. All sections are being adhered to.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	6.4	Operational data.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	6.5	All required reports are submitted in a timely fashion and signed by an appropriate responsible official.	In compliance.	fl☐ Yes ☐ No	0	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	6.6	NA	NA	☐ Yes ☐ No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the original Fact Sheet corresponding with the issuance of the initial Title V operating permit issued on March 28, 2007.

Permit Number: **R30-00900027-2007, Part 1 of 2**
Applications Received: **November 24, 2008 and March 11, 2010**
Plant Identification Number: **03-54-009-00027**
Permittee: **Ball Metal Food Container Corporation**
Mailing Address: **3010 Birch Drive, Weirton, West Virginia 26062**

Permit Action Number: *MM01* Revised: *July 12, 2010*

Physical Location:	Weirton, Brooke County, West Virginia
UTM Coordinates:	531.9 km Easting • 4,470.8 km Northing • Zone 17
Directions:	From downtown Weirton, south on Rt.2 to Freedom Way. Right on Freedom Way to Birch Drive. On Birch Drive approximately 1 mile. Facility is on the right side of road in Weirton Steel complex in Half Moon Park.

Facility Description

The plant receives coils of tin-plated steel which it cuts into sheets and coats with a protective varnish. The sheets are cured in an oven and either transferred to the end department to be pressed into ends or shipped off site to be made into food can bodies.

The plant has four (4) coating lines and five (5) permitted end lines. Emissions from three (3) of the coaters/ovens (Em. Unit IDs C-1, C-2, and C-3) have been controlled by a Corpak Air Preheater F147 thermal oxidizer. The fourth coater/oven (Em. Unit ID C-4) is controlled by a Catalytic Products SR-6000 thermal oxidizer combined with a permanent total enclosure (PTE) capture system. Four (4) end lines have converted to no-HAP end compound to comply with 40 C.F.R. Part 63 Subpart KKKK. The fifth end line uses water-based compound.

This permitting action will replace the Corpak Air Preheater F147 thermal oxidizer with a MEGTEC CLEANSWITCH Regenerative Thermal Oxidizer (RTO). The Corpak thermal oxidizer had a design capacity of 17 MMBtu/hr, while the MEGTEC RTO is much more efficient with a capacity of 4.0 MMBtu/hr. Additionally, the VOC loading in the incoming exhaust steam has an estimated heating content of about 3.8 MM Btu/hr. This will allow the operation of the RTO to be self-sustaining from combustion of solvents in the exhaust with the introduction of natural gas, as needed, to maintain operation. The Corpak oxidizer was not designed to be operated in such a manner. Using the MEGTEC RTO will also reduce emissions as explained in the Emissions Summary.

This permitting action will also address changes required by Appeal #09-02-AQB. This appeal resolved issues between Ball and the WVDAQ concerning R13-1458C. This appeal was addressed in R13-1458D. As part of the changes made in R13-1458D, three coater hoods were replaced with Permanent Total Enclosures (PTEs).

The facility is characterized by SIC Code 3411, and NAICS Code 332431.

Emissions Summary

Replacement of the oxidizer and coater hoods will result in the following reductions in emissions:

Emission Comparison of the Oxidizers		
	Net Change	
Pollutant	lb/hr	TPY
$PM/PM_{10}/PM_{2.5}$	-0.10	-0.43
Sulfur Dioxide	-0.01	-0.03
Oxides of Nitrogen	-1.30	-5.69
Carbon Monoxide	-1.09	-4.78
Volatile Organic Compounds	-52.29	-288.87

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 TPY of VOC, and 25 TPY of aggregate HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, and over 25 tons per year of aggregate HAPs, Ball Metal Food Container Corporation is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	
	45CSR30	Operating permit requirement.
	40 C.F.R. 63 Subpart KKKK	Can Coating MACT
State Only:	None	

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit *(if any)*
R13-1458D	April 30, 2010	
Appeal #09-02-AQB	March 31, 2010	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

Major Source under 45CSR14

Ball Metal Food Container Corp.'s Weirton Facility previously operated as two (2) facilities owned by different companies:

- Untied States Can Company's Half Moon Facility
- Ball Metal Food Container Corp's Weirton Facility

On March 27, 2006, Ball acquired Untied States Can Company's Half Moon facility and began operating under the name of Ball Aerosol and Specialty Container Inc. Ball Corporation, the owner of Ball Metal Food Container Corp, requested that the Ball Aerosol and Specialty Container's Half Moon Facility and Ball Metal Food Container Corp's Weirton Facility become one facility and be operated under the name of Ball Metal Food Container Corp. in October of 2007. The combined Weirton facility became classified as a major source for VOCs under 45CSR14 and subject to a MACT standard.

Language in Condition 3.1.9.

This condition prohibited the use of coatings or solvents containing hazardous volatile constituents different from those submitted in Permit Application R13-1458 without prior approval by the Director, as specified in Condition A.9. of R13-1458B. Since the facility is now a major source for HAPs and subject to a MACT standard, this requirement was removed from R13-1458C. However, Ball still desires to have this condition in their Title V permit. Since this condition was added upon Ball's request and is no longer in R13-1458, the reference to R13-1458 was replaced with 45CSR§30-12.7, which addresses permit conditions proposed by a permit applicant.

Language in Condition 3.1.10.
This condition limited the facility wide VOC emission rates from all sources at this facility to 233.42 tons per year, as specified in Condition A.10. of R13-1458B. This condition set a plant wide VOC limit which made the facility a minor source with respect to 45CSR14. However, this limit is no longer valid.

According to the engineering evaluation for R13-1458C, removing this condition might allow Ball to circumvent the Major Source - Major Modification requirements of 45CSR14. To prevent this, the condition was rewritten in R13-1458C so that the reference to "plantwide" is replaced with "Building 33". The sources permitted under R13-1458B, R13-1546, and R13-2111A are located in Building 33. This Title V permit was updated to reflect this change.

Language in Conditions 3.5.3. and 3.5.5.
These conditions were updated to include electronic submittal requirements of the annual certification submitted to the EPA.

Additional Recordkeeping Requirements in Section 3.4
Recordkeeping requirements concerning the maintenance and malfunctions of air pollution control equipment were added in R13-1458C, and were added to this Title V permit as Conditions 3.4.5 and 3.4.6. Also, with R13-1458C, Ball is required to keep onsite technical information of the VOC content of coatings applied in Building 33; this requirement was added to this Title V permit as Condition 3.4.7.

Language in Condition 4.1.1. and Appendix A
Condition 4.1.1. and Appendix A were updated for a more recent verification report dated January 3, 2007.

Coater Monitoring Requirements in Condition 4.2.2.
With R13-1458C, Ball is now required to maintain the following records for C-1, C-2, and C-3:

- Usage of each coating and solvent.
- VOC content of each compound and solvent.
- Hours of operation of each sheet coating line during the month.
- Usage of each cleaning solvent and VOC emissions from cleaning solvent usage.
- Amount of VOC emitted from each sheet coating line.
- Fugitive point source VOCs emissions.

Language in Condition 4.5.1.
This condition requires annual reports to be submitted, as specified in Condition B.2. of R13-1458B and Condition A.8. of R13-2111A.

The permit writer removed this condition from R13-1458B citing the following reasons:

- Since the facility is no longer a synthetic minor source under 45CSR14, these reports are no longer necessary.
- The facility is subject to Title V and currently operates under a Title V operating permit. The facility's Title V permit requires the submission of semi and annual compliance reports. The condition in R13-1458B appears to duplicate this reporting requirement.

The references to R13-1458B were removed from this condition; however the condition itself remains in the permit. Condition A.8. of R13-2111A, which is worded almost exactly as Condition 4.5.1. of the Title V permit, has not been changed or removed. Therefore, this facility must still comply with this condition.

Language in Condition 6.1.1.
This permit condition restates permit conditions previously included in this Title V permit for the Air Preheater F147, which is being replaced with the RTO. While the new RTO is being added to this permit, it is not yet operating. The language in Condition 6.1.1. ensures compliance until the RTO is operational. At that time, this permit condition will be voided.

Language in Condition 6.1.2.

This condition (previously Condition 6.1.1.) limited the VOC emission rates from emission point 1E (the basecoater incinerator) to a maximum of 27.19 pounds per hour, referencing Condition A.1. of R13-1458B.

Condition A.1. was rewritten as Condition 4.1.7.a of R13-1458C. To account for emission changes due to the installation of the MEGTEC CLEANSWITCH Regenerative Thermal Oxidizer (RTO), the new condition reduced the VOC emission limit to 8.20 pounds per hour. The new condition also contains limits for $PM/PM_{10}/PM_{2.5}$, NOx, and CO. This Title V permit was updated to reflect these changes.

Language in Condition 6.1.3.

This condition (previously Condition 6.1.2.) specified an overall VOC reduction efficiency of 85.5% for the Corpak Air Preheater F147 thermal incinerator, referencing Condition A.7. of R13-1458B. Based on equipment information provided in the Title V permit application, the The MEGTEC CLEANSWITCH RTO, which replaces the Corpak thermal incinerator, has an estimated reduction efficiency of 99% and a minimum efficiency of 98%.

Condition A.7. was rewritten as Condition 4.1.7.c. of R13-1458C and specifies the VOC destruction efficiency be maintained at 98%. This Title V permit was updated to reflect this change.

Language in Condition 6.1.4. and 6.2.13.

Condition 6.1.4 (previously Condition 6.1.3.) specified a minimum operation temperature of 1400°F in the incinerator chambers of both the Corpak Air Preheater F147 and Catalytic Products SR-6000 thermal oxidizers (Emission Unit IDs: TO-1 and TO-2, respectively), referencing Condition A.8. of R13-1458B and Condition A.1. of R13-2111A. Based on equipment information provided in the Title V permit application, the The MEGTEC CLEANSWITCH RTO, which replaces the Corpak thermal incinerator, has a combustion temperature of 1600°F during typical operation of the feeding units. The RTO has a combustion temperature of 1800°F during maximum operation of the feeding units.

Condition A.8. was rewritten as Condition 4.1.7.d. of R13-1458C and specifies the operating temperature of the RTO (TO-1) be maintained at 1600°F until the operating temperature can be established during the most recent performance testing that demonstrates compliance with the destruction efficiency requirement of 98%. Monitoring requirements for the duct static pressure and temperature are outlined in condition 6.2.13.

Language in Conditions 6.1.15, 6.1.19, 6.1.20, 6.2.2, 6.3.3, 6.3.6, and 6.4.2

Previously, emissions from coaters C-1, C-2, and C-3 were captured in hoods mounted over the coater roll and sent to an RTO. These hoods are being replaced with Permanent Total Enclosures (PTEs) to achieve 100% VOC capture efficiency.

Conditions 6.1.15 and 6.3.3 were specifically written for the hoods, and these permit conditions were removed. The remaining conditions were revised to regulate the PTEs.

Language in Conditions 6.1.17, 6.1.18, 6.1.21, 6.3.7, 6.3.8, and 6.3.9

There permit conditions were added to address new operating requirements for the RTO. These new permit conditions address:

- Measuring and recording temperature measurements.
- Valve inspection.
- Operation and maintenance of air pollution control equipment.
- Performance testing to determine initial compliance with the VOC limit in Condition 6.1.2.
- Measuring visible emissions from the RTO.
- Testing required when setting new operating limits for the RTO and capture system.

Language in Conditions 6.2.1. and 6.2.10.

These conditions specify monitoring requirements for the combustion temperatures of TO-1 and TO-2. Various regulations and permits are referenced with some streamlining:

- Compliance with the continuous temperature recording requirement of R13-2111A ensures compliance with the less stringent recording requirement of R13-1458D, which required the temperature to be recorded every 15 minutes.
- Compliance with the device accuracy limit of ±0.75% of the temperature value, as specified in R13-2111A, ensures compliance with less stringent limit of ± 1 percent of the temperature, as specified in 40 C.F.R. Part 63 and R13-1458D.

No requirements were changed in these conditions; however, they were revised for clarity.

Language in Conditions 6.2.14. and 6.5.2.

Monitoring and reporting requirements for a "bypass line" were added with R13-1458D. The bypass line acts as an emergency vent for each coating oven, opening to the atmosphere during an RTO malfunction. During an RTO malfunction, a damper closes, blocking flow to the RTO. The damper is interlocked with dampers on each coating oven so that they automatically open. Emissions should be negligible since all three lines shut down when the RTO damper is closed. In addition to being addressed in the MACT, they are required by the National Fire Protection Association standards.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

None

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: N/A
Ending Date: N/A

All written comments should be addressed to the following individual and office:

Rex Compston
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Point of Contact

Rex Compston
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Not applicable.

West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-00900027-2008 (Part 2 of 2)**
Application Received: **May 08, 2007**
Plant Identification Number: **03-054-009-00027**
Permittee: **Ball Metal Food Container Corporation**
Mailing Address: **3010 Birch Drive, Weirton, West Virginia 26062**

Physical Location:	Weirton, Brooke County, West Virginia
UTM Coordinates:	531.90 km Easting • 4,470.80 km Northing • Zone 17
Directions:	From downtown Weirton, south on Route 2 to Freedom Way. Right on Freedom Way to Birch Drive. Right on Birch Drive approx. 1 mile. Facility is on the right side of road in Mittal Steel complex in Half Moon Park.

Facility Description

The plant receives coils of tin-plated steel which it cuts into sheets and coats with lithographic inks and/or protective varnishes. The sheets are cured in ovens and shipped off site to be made into food, aerosol or special containers or pressed into container ends. The plant has 13 permitted coating lines: six (6) standard sheet coating lines located inside a permanent total enclosure (EPA Method 204 PTE) and controlled by a thermal oxidizer, five (5) lithography lines (lines with multi-color printers followed by coaters) in which the coaters are controlled by exhaust hoods which are routed, along with their oven emission into the oxidizer, one (1) LTG coater located in a permanent total enclosure (PTE) and controlled by its own oxidizer, and one (1) Planeta printer, which is uncontrolled but uses only ultraviolet coatings and has little emissions relative to the other emission units at the facility. The facility is characterized by SIC and NAICS codes 3411 and 332431, respectively.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	**Potential Emissions [3]**	**2005 Actual Emissions [2]**
Carbon Monoxide (CO)	13.4	0.47
Nitrogen Oxides (NO_x)	16.0	8.57
Particulate Matter (PM_{10})	12.5	Not available from CES
Total Particulate Matter (TSP)	12.5	0.65
Sulfur Dioxide (SO_2)	0.1	0.05
Volatile Organic Compounds (VOC)	942.5	149.89 [1]

PM_{10} is a component of TSP.

Hazardous Air Pollutants	**Potential Emissions [3] [4]**	**2005 Actual Emissions [2]**
Xylene		9.66
Ethyl Benzene		3.65
1, 2 – Ethanediol		0.27
Glycol Ethers		1.47
Cumene (isopropyl benzene)		0.49
Methyl Isobutyl Ketone		9.20
Isophorone		2.51
Formaldehyde		0.06
Toluene		0.42
Naphthalene		1.53
Total HAPs	242.0	29.3

(1) The actual VOC emissions contain 29.3 tons which are also HAPs.

(2) The 2005 Actual Emissions are reproduced from the permittee's 2006 Certified Emissions Statement Invoice, and represent the emissions from January 1, 2005 through December 31, 2005.

(3) All PTEs are for Part 2 of the Ball Metal Food Container Corporation facility (Plant ID 009-00027) alone.

(4) The potential emissions for each speciated HAP is not available due to variability of materials used at the facility.

Title V Program Applicability Basis

This facility has the potential to emit 942.5 tons per year of VOC, and 242.0 tons per year aggregate HAPs. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, and over 25 tons per year of aggregate HAPs, Ball Metal Food Container Corporation (Part 2 of 2), is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Prevention and Control of Air Pollution from Combustion of Refuse
	45CSR7	Prevention and Control of Particulate Matter
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for Construction
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emission standards for HAPs for source categories pursuant to 40 C.F.R. Part 63
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63, Subpart KKKK	Surface Coating of Metal Cans
	40 C.F.R. Part 64	Compliance Assurance Monitoring
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR15, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit *(if any)*
R13-2295C	April 2, 2008	
R30-00900015-2002	November 4, 2002	PD97-138

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under

the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

1. **Sheet Coaters and Ovens, Lines C-1 through C-6 (Emission Unit IDs 001-01 through 001-12), Emissions Capture System, and Regenerative Thermal Oxidizers (Control Device ID 0001)**

   a. **R13-2295C Conditions**
   Condition 4.1.12. requires control device 0001 to reduce emissions of HAPs by 95%, which is based upon applicable MACT requirement discussed below.

   Condition 4.1.13. specifies the minimum operating temperature 1,450°F (815C). This requirement is set forth in permit condition 4.1.1.

   b. **45CSR6 – *To Prevent and Control Air Pollution from Combustion of Refuse***
   The emissions of VOC and HAP from the coaters and ovens are destroyed by the regenerative thermal oxidizers identified as Control Device ID 0001, which subsequently emits particulate matter. The RTO is actually a 2-canister regenerative thermal oxidizer with a common stack. There are two RTOs, but they act as one control device, venting to one stack (*i.e.*, emission point ID 1E). Active permit R30-00900027-2002, condition E.1.a., specified a PM emission limit of 1.4 lb per hour per RTO. The underlying requirement for the permit condition is 45CSR§6-4.1. Condition E.1.b. established the monitoring required to demonstrate compliance with the 1.4 lb/hr per RTO limit. This monitoring consists of demonstrating that natural gas is the only fuel combusted in the RTOs. The DHI of each RTO is 6.6 MMBtu/hr, and the RTOs combust only natural gas with a heating value of 1,000 Btu/scf. The AP-42 emission factor for total PM (Table 1.4-2, dated July 1998) is 7.6 lb/ 10^6 scf. Therefore, the maximum PM emission rate (PM_{rate}) per RTO, from natural gas combustion only, is given by:

$$PM_{rate} = \left(\frac{7.6 lb / 10^6 scf}{1{,}020 \frac{lb / 10^6 scf}{lb / MMBtu}} \right) \left(\frac{1{,}000 Btu / scf}{1{,}020 Btu / scf} \right) 6.6 MMBtu / hr \cdot RTO$$

$$PM_{rate} = 0.048 \frac{lb}{hr \cdot RTO}$$

This amount does not include any PM that is products of combustion of VOC and HAP. For the sake of this discussion, an *assumption* will be made that the products of combustion are not in amounts to exceed the 1.4 lb/hr-RTO limit. This seems like a reasonable engineering judgment since the maximum PM emission rate from each RTO (resulting from natural gas combustion only) is approximately (0.048/1.4)(100) = 3.4% of the limit. In theory, the heating value of natural gas and/or design heat input of the RTO would have to increase substantially to exceed the limit. But in practice, the required increase to exceed the limit is not possible without major modification of the RTOs. Although the monitoring of natural gas usage is technically the compliance demonstration for the PM emission rate limit, the usefulness, practical value, and necessity of such monitoring is questionable considering the calculation above. The PM emission rate limit will be carried over to the renewed permit as condition 4.1.1. However, for the reasons discussed, the permit writer intended not to carry over the current Title V monitoring condition E.1.b. But, the permittee has requested to keep this monitoring condition so that a statement that natural gas was the only fuel combusted will demonstrate

compliance. This monitoring will be simpler for the permittee, rather than performing calculations or some other more technical and complicated means of compliance demonstration.

c. **40 C.F.R. 63 Subpart KKKK** – ***National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans.***

Applicability

The sheet coaters C-1 through C-6 are subject to this NESHAP since the equipment performs *sheetcoating*, as described in §63.3481(a)(2), and are not excepted by §63.3481(c). The facility is considered *existing*, in accordance with §63.3482(e).

Compliance Date, Initial Compliance Period and Demonstration, and Notification of Compliance Status

The compliance date for the facility is determined by §63.3483(b), and is November 13, 2006. The initial compliance period begins on the compliance date, and ends on the last day of the twelfth month following the compliance date according to applicable requirement §63.3550(b)(3). Therefore, the end of the initial compliance period is November 30, 2007. According to §63.3550(b)(3), the initial compliance demonstration is performed during the initial compliance period in accordance with applicable requirements §63.3551 for the six (6) sheet coaters lines, the PTE emission capture system at the coaters, and the regenerative thermal oxidizer (Control Device ID 0001). The Notification of Compliance Status (NOCS) must be submitted no later than 30 calendar days following the end of the initial compliance period, in accordance with §63.3510(c). Thus, the NOCS must be submitted no later than December 30, 2007. The report must contain the information specified in §§63.3510(c)(1) through (9). In keeping with §63.3512(a), the permittee must maintain records of this notification, and documentation supporting the notification. The permittee submitted the NOCS, and it was received by DAQ on December 27, 2007. The permit writer reviewed the NOCS, and all items §§63.3510(c)(1) through (9) were included. Since this reporting requirement has been fulfilled, there will be no requirement in the permit concerning a compliance date, compliance period, or to submit an NOCS.

Emission Limits

For an existing affected source, §63.3490(b) limits organic HAP emissions to no more than those listed in Table 2 to 40 C.F.R. 63 Subpart KKKK, or the option to reduce organic HAP emissions according to Table 3 of Subpart KKKK. According to the application and the permittee's e-mails (dated 6/14/07 and 8/02/07) received from Mr. John Munsch (Ball), the permittee has elected to control HAP emissions according to Table 3 of Subpart KKKK, which is the *Control efficiency/outlet concentration option* specified in §63.3491(d). Under this option, the permittee must reduce emissions of total HAP by at least 95% (for existing sources), or achieve no more than 20 ppmvd at the control device outlet. The permittee will reduce organic HAP emissions by 95%, rather than employing the 20 ppmvd outlet concentration option. The *Control efficiency/outlet concentration option* requires the coater emissions' capture device to be a PTE as specified by EPA Method 204 of 40 C.F.R. Part 51, Appendix M. The permittee determined, via third-party testing in November 2006, that the enclosure for the coaters is a PTE according to Method 204. Therefore, the permittee may actually use either option (Table 2 or Table 3) stated above so long as the permittee uses the options in accordance with §63.3491, and documents and reports any switch between compliance options for any coating operation or group of coating operations. However, upon review of pre-draft permit documents, Mr. Munsch commented that the permittee will not be using the 95% reduction to comply with the MACT. This means that the 0.26 lbs HAP/gal solids limit from Table 2 will be the employed limit. Considering the fact that (i) the permittee may need flexibility to change between these two options in the future; and (ii) the rule language includes both limits with an "or statement," both limits will be included in the permit. Refer to permit condition 4.1.3., which contains an "or statement" between the 0.26 lbs limit and the 95 percent organic HAP reduction requirement. The language will not be unlike the applicable language in §63.3490(b).

Operating Limits

In accordance with §63.3492(b), the permittee must meet the operating limits specified in Table 4 to Subpart KKKK. These limits must be established during the performance test according to the requirements of §63.3556, and must be met at all times after they are established. The applicable requirements from Table 4 to Subpart KKKK are given below in Table A:

Table A – Operating Limits for the Sheet Coater Lines' Control Devices and PTE Capture System

Device	Operating Limit	Continuous Compliance Demonstration
Regenerative Thermal Oxidizers (Control Device ID 0001)	a. Develop and implement a valve inspection plan according to §63.3556(c) (permit condition 4.2.3.); and	i. Maintaining an up-to-date valve inspection plan. If a problem is discovered during an inspection required by §63.3556(c), you must take corrective action as soon as practicable (permit condition 4.2.3.).
	b. Average combustion temperature recorded at the end of each 3-hour block period must not fall below the minimum combustion chamber temperature limit established according to §63.3556(a) (permit condition 4.1.1.).	ii. Collect the combustion temperature data according to §63.3557(c) (permit condition 4.2.1.);
		iii. Reducing the data to 3-hour block averages (permit condition 3.2.6.); and
		iv. Maintaining the 3-hour block average combustion temperature at or above the temperature limit established according to §63.3556(a) (permit condition 4.1.1.).
PTE emission capture system for coaters and ovens (Em. Unit IDs 001-01 through 001-12) [1]	a. The direction of the air flow at all times must be into the enclosure (permit condition 4.1.2.); and	i. Collecting the direction of air flow, and the pressure drop across the enclosure (permit condition 4.2.2.); and
	b. The pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 C.F.R. Part 51 (permit conditions 4.1.2.).	ii. Maintaining the pressure drop at or above the pressure drop limit, and maintaining the direction of air flow into the enclosure at all times (permit conditions 4.1.2.).

1. The average minimum facial velocity of air indicator of 200-fpm has not been included in the second and third columns since the permittee will use a pressure measuring device in the PTE to ensure compliance with the minimum pressure drop, 0.007 inch of H_2O.

Note that the regenerative thermal oxidizers (Control Device ID 0001) are required by §63.3492(b) (which refers to Table 4 of Subpart KKKK) to have a *valve inspection plan*, written by the permittee in accordance with §63.3556(c). The context of §63.3556 is the establishment of operating limits (found in Table 4 of Subpart KKKK) during the performance testing, which according to §63.3550(b)(3), must have been performed prior to the compliance date discussed above. Therefore, the permittee should have already developed and submitted the valve inspection plan. The permit writer received a PDF format electronic copy of this plan from the permittee via e-mail on August 2, 2007. Inspection of key parameters (such as solenoid valve operation, air pressure, hydraulic pressure, etc.) and visual inspection of valves is deemed as monitoring. The *valve inspection plan* requirement also suggests the possibility of testing as a form of periodic monitoring. Since the plan is essentially a monitoring requirement, refer to permit condition 4.2.3. for the *valve inspection plan*.

Work Practice Plan

Since the permittee is using the *Emission rate with add-on control option* or the *Control Efficiency/outlet concentration option* to comply with emission limitations on the six (6) sheet coaters, §63.3493(b) requires the permittee to develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings. The plan must minimally contain the elements specified in §§63.3493(b)(1) through (5), and according to §63.3550(b)(2), the plan must be developed and implemented no later than the compliance date. In keeping with §63.3551(c), the permittee must document the implementation of the plan during the initial compliance period. The work practice plan is set forth as a facility-wide requirement (permit condition 3.1.16.) since it is applicable to multiple emission units, capture systems, and control devices. The §63.3550 series

citations (*Control Efficiency/outlet concentration option*) for permit condition 3.1.16. are applicable to the coaters on lines C-1 through C-6, while the §63.3540 series citations (*Emission rate with add-on control option*) refer to the coater lines PC-3, PC-4, PC-5, PC-6, and PC-7 which are discussed below in 4.c.

Startup, Shutdown, and Malfunction Plan (SSMP)

In accordance with §63.3500(c), the permittee must develop and implement a written SSMP according to the provisions in 40 C.F.R. §63.6(e)(3), for the sheet coaters, including their respective capture systems and regenerative thermal oxidizer (Control Device ID 0001). Since the SSMP encompasses multiple types of equipment (coaters, capture system, and thermal oxidizer), this permit condition will be listed under the facility-wide requirements as permit condition 3.1.17. As with the Work Practice Plan discussed above, the §63.3550 series citations for permit condition 3.1.17. are applicable to the coaters on lines C-1 through C-6, while the §63.3540 series citations refer to the coater lines PC-3, PC-4, PC-5, PC-6, and PC-7 (discussed below).

Testing

For the initial compliance demonstration completed during the initial compliance period, §63.3550(b)(3) requires use of the results of the performance testing conducted according to §§ 63.3553 (general requirements), 63.3554 (capture system efficiency), and 63.3555 (control device destruction efficiency). Therefore, performance testing must have been performed prior to the compliance date, which starts the initial compliance period. Since the compliance date (November 13, 2006) is in the past, there are no other performance tests to be completed, and there are no ongoing or periodic performance tests to comply with Subpart KKKK. Therefore, permit subsection 4.3. will not have any Subpart KKKK requirements.

Recordkeeping

The permittee must maintain a records in accordance with §§63.3512 and 63.3513. §63.3512(a) through (j) set forth recordkeeping requirements, while 63.3513 specifies the format and retention period requirements for all records. Refer to permit conditions 4.4.1., 4.4.2., 3.4.6., and 3.4.7.

Reporting

40 C.F.R. §63.3511 sets forth the requirements for the Subpart KKKK semiannual compliance report, which is to be distinguished from the semiannual monitoring report under permit condition 3.5.6., although the semiannual compliance report may be included with the semiannual monitoring report. All of the requirements in §63.3511(a) were reviewed by the permit writer, and edited in the permit only to reflect applicability to the permittee (permit condition 3.5.12.). It was noted in the permit writer's copy of Subpart KKKK that the paragraph under §63.3511(a) refers to (a)(1) through (7), and leaves out (8). The permit writer believes this is an involuntary omission since (8) requires reporting of deviations while using the *control efficiency/outlet concentration option*. This is an option that the permittee is using to demonstrate compliance with Subpart KKKK; therefore, the content of (a)(8) will be included in permit condition 3.5.12.

§63.3511(a)(1)(i) states that the first semiannual reporting period begins the day after the end of the initial compliance period. The last day of the initial compliance period is November 30, 2007 (as discussed above in 1.c.). So it was concluded by the permit writer that the first semiannual reporting period begins on December 1, 2007. The regulatory requirement also states that the first reporting period ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period. In this case, December 31 occurs first. Therefore, the permit writer concludes that the first semiannual reporting period begins on December 1, 2007, and ends on December 31, 2007. Clearly, this is a very short reporting period, but this is the result of applying the regulatory language, and this is the only reporting period of this brevity. All subsequent reporting periods will cover 6-month periods. It is noteworthy that §63.3511(a)(1)(iv) allows the permittee to submit the first and subsequent compliance reports according to the dates established in permit condition 3.5.6. instead of

the dates in §63.3511(a)(1)(iii). This was concluded based upon two requirements in §63.3511(a)(1)(iv) being satisfied: (1) The permittee is subject to permitting regulations pursuant to 40 C.F.R. Part 70, which is State regulation 45CSR30 for Title V permitting; and (2) the WV DAQ has established dates for submitting semiannual reports pursuant to 40 C.F.R. §70.6(a)(3)(iii)(A), which are set forth in permit condition 3.5.6. Refer to permit condition 3.5.12. concerning the semiannual compliance report requirements.

Performance test reporting, required by §63.3511(b), is set forth as permit condition 3.5.13. The SSMP reporting required by §63.3511(c) is set forth as permit condition 3.5.14., and it cross-references the SSMP requirement in permit condition 3.1.17.

d. **40 C.F.R. Part 64 – *Compliance Assurance Monitoring (CAM)***

The sheet coaters and ovens (Em. Unit IDs 001-01 through 001-12) emit VOC, HAP, and PM. The emissions from these sources are captured by an EPA Method 204 permanent total enclosure (PTE) and are routed to a regenerative thermal oxidizer (Control Device ID 0001). The emission units, capture systems, and control device are subject to 40 C.F.R. Part 64 for pollutants VOC and PM since the system meets all of the applicability criteria set forth by 40 C.F.R. §64.2(a) and is not exempt in accordance with §64.2(b). The applicable regulatory citation(s) of 40 C.F.R. 64 will be used with permit conditions that regulate emissions of VOC and PM. Though the capture and control system destroys HAP, it should be noted that 40 C.F.R. 64 does not directly apply to the control of HAP emissions from the emission units since the HAP emissions are regulated by the applicable requirements of 40 C.F.R. Part 63 Subpart KKKK.

The permit writer specified nine (9) excursions per 6-month reporting period as the threshold for triggering the development of a QIP (§64.8). This number per reporting period was the threshold proposed by the permittee for one of their other facilities (Ball Metal Food Container Corp., Facility ID 009-00027). The threshold was included in the Title V permit for Ball Metal Food Container Corp. (Permit R30-00900027-2007, Condition 6.2.12.).

The following Table B outlines the requirements of the CAM plan for the capture system and control device, which together control emissions from the sheet coaters and ovens.

Table B – CAM Plan for Sheet Coaters and Ovens (Em. Unit IDs: 001-01 through 001-12), PTE Capture System, and Regenerative Thermal Oxidizer (Control Device ID 0001)

Criteria	Indicator No.1 of 2 [1]	Indicator No.2 of 2
I. Indicator	Combustion chamber temperature (permit condition 4.2.1.)	Differential pressure at PTE (permit condition 4.2.2.)
Measurement Approach	Thermocouple in combustion chamber with output to continuous data recorder (permit condition 4.2.1.)	Pressure sensor installed inside PTE with output to continuous data recorder (permit condition 4.2.2.)
II. Indicator Range	The temperature must be maintained at a minimum of 1,450 °F (4.1.1.). An excursion is defined as recorded temperature readings more than 50°F below the limit in 4.1.1. for a period of time in excess of 3 hours (permit conditions 4.2.1. and 4.4.1.). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.11.).	An excursion is defined as recorded differential pressure readings less than 90% of the limit in permit condition 4.1.2. for a period of time in excess of 30 minutes (permit conditions 4.2.2. and 4.4.1.). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.11.).
QIP threshold	No more than nine (9) excursions during a 6-month semiannual reporting period (permit conditions 3.2.7. and 3.2.8.).	No more than nine (9) excursions during a 6-month semiannual reporting period (permit conditions 3.2.7. and 3.2.8.).

Table B – CAM Plan for Sheet Coaters and Ovens (Em. Unit IDs: 001-01 through 001-12), PTE Capture System, and Regenerative Thermal Oxidizer (Control Device ID 0001)		
Criteria	Indicator No.1 of 2 [(1)]	Indicator No.2 of 2
III. Performance Criteria - Data Representativeness	The thermocouple is located in the incinerator combustion chamber. The sensor must have an accuracy of ± 1.2 °C or ± 1.0 percent of the temperature being measured expressed in degrees Celsius, whichever is greater (permit conditions 4.2.1., and 4.3.1.).	The pressure sensor is installed inside the PTE capture hood. The device will have an accuracy sufficient to demonstrate compliance with appropriate pressure limits/thresholds (permit condition 4.2.2. and 4.3.2.).
- Verification of Operational Status	The permittee has proposed to perform monthly verification of data collection to ensure proper recordkeeping by checking if there are any gaps in the data acquisition due to software problems (permit condition 3.2.2.).	The permittee has proposed, to perform monthly verification of data collection to ensure proper recordkeeping by checking if there are any gaps in the data acquisition due to software problems (permit condition 3.2.2.).
- QA/QC Practices and Criteria	The thermocouple must be calibrated minimally on an annual basis and properly maintained (permit conditions 4.3.1. and 3.2.4.)	The pressure transducer must be calibrated minimally on an annual basis and properly maintained (permit condition 4.3.2. and 3.2.4.).
- Monitoring frequency	Measured continuously (permit conditions 3.2.3., 3.2.5., and 3.2.6.)	Measured continuously (permit conditions 3.2.3., 3.2.5., and 3.2.6.)
- Data Collection Procedure	Data point collected at least every 20 seconds (permit condition 3.2.6.)	Data point collected at least every 20 seconds (permit condition 3.2.6.)
- Averaging Period	45 consecutive points averaged for one (1) 15-minute interval. One average number recorded every 15 minutes and four numbers recorded per hour at evenly spaced intervals (permit condition 3.2.6.).	45 consecutive points averaged for one (1) 15-minute interval. One average number recorded every 15 minutes and four numbers recorded per hour at evenly spaced intervals (permit condition 3.2.6.).

(1) Indicator No.1 of 2 in Table B is the same as Indicator No. 1 of 2 in Table H below in section 4.d.

2. **LTG-1 Sheet Coater and Oven (Emission Unit ID 007-01 and 007-02), Emissions Capture System, and Thermal Oxidizer (Control Device ID 0003)**

The permittee plans to replace one existing sheetcoating line (Em. Unit ID: LTG C-7) with a new line (Em. Unit ID: LTG-1). The new line will have its own thermal oxidizer (Control Device ID: 0003), and is expected to achieve VOC/HAP destruction efficiencies greater than 98 percent. Additionally, the new coater will have a permanent total enclosure (Method 204 PTE) to ensure capture of 100 percent of the emissions and route them through the oven and into the thermal oxidizer. It should be noted that when existing line LTG C-7 was permitted for construction, another identical line was permitted as well, but it was never installed. An application to install the new line LTG-1 was received by DAQ on November 2, 2007, which precipitated permit R13-2295C. The permittee stated in the application for R13-2295C that if the construction permit is issued in March 2008, installation would begin late in the first quarter of 2008 and startup would occur mid-second quarter 2008.

a. **R13-2295C Conditions**

Condition 4.1.1. formally revokes permission to install old coating line LTG2, which was never installed even though it was permitted for construction. Refer to permit condition 5.1.6.

Condition 4.1.2. requires the permittee to remove the existing coater LTG C-7 from service prior to the new coater LTG-1 commencing service. Refer to permit condition 5.1.7.

Condition 4.1.3. requires a 97% reduction in HAPs for the new LTG-1 coater. This efficiency was proposed by the permittee in the emission reduction calculations submitted in application R13-2295C. Therefore, regardless of the 40 C.F.R. 63 Subpart KKKK limit that will be complied with, this

destruction efficiency for LTG-1 has been established in the R13 permit. Refer to Title V permit condition 5.1.8.

Condition 4.1.4. requires use of a permanent total enclosure (PTE) for the new LTG-1 coater. Use of a PTE is required if the permittee elects to comply with the 97% *control efficiency/outlet concentration option* under §63.3491(d). The Subpart KKKK discussion below demonstrates that the permittee may also (and likely will) comply with the 0.26 lb HAPs/gal solids limit in §63.3490(b) (which does not require the use of a PTE, although one can be used for this option). The PTE requirement has been set forth as permit condition 5.1.2.

Condition 4.1.5. sets forth the requirement for the construction of a Permanent Total Enclosure (PTE, which is defined by US EPA Method 204 in Appendix M of 40 C.F.R. 51), to capture emissions from the LTG-1 coater. Refer to permit condition 5.1.4.

Condition 4.1.6. requires the LTG-1 coater to be integrated into the work practice plan required by 40 C.F.R. §63.3493(b). The plan is discussed below, and the requirement is permit condition 3.1.16. Condition 4.1.7. perpetuates condition 4.1.6. This condition has also been cited in 3.1.16.

Condition 4.1.8. sets the minimum combustion chamber temperature for the thermal oxidizer controlling emissions from LTG-1. This has been set forth as permit condition 5.1.3.

Condition 4.1.9. requires the written SSMP, which is discussed below under 40 C.F.R. 63 Subpart KKKK. Refer to permit condition 3.1.17.

Condition 4.1.10. limits the VOC and HAP emissions from both the LTG-1 coater and the Planeta Press (discussed below). Note that permit condition 5.1.5. will only contain the limits for LTG-1. The limits for the Planeta Press will be in condition 6.1.2.

b. **40 C.F.R. 63 Subpart KKKK – *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans***

Applicability

The LTG-1 sheet coater will be subject to this NESHAP since the equipment will perform *sheetcoating*, as described in §63.3481(a)(2), and are not excepted by §63.3481(c). The coater is considered a new installation for the Weirton facility. Subpart KKKK applies to each new, reconstructed, and existing affected source (§63.3482(a)). The definition of an *affected source* is given in 40 C.F.R. §63.2, which states that an *affected source* "...means the collection of equipment, activities, or both within a single contiguous area and under common control..." From this definition, it was determined by the writer that the Weirton facility as a whole is the *affected source*, and based upon its construction date, it is existing for application of Subpart KKKK. Therefore, the LTG-1 line that is to be installed is not a *new affected source*, and LTG-1 itself does not have to comply with the Subpart KKKK requirements that are applicable to a *new affected source*.

Compliance Date, Initial Compliance Period and Demonstration, and NOCS

The compliance date for the coater LTG-1 is determined by §63.3483(b), and is November 13, 2003. Since this date is in the past, it stands to reason that the LTG-1 must be in compliance with Subpart KKKK upon startup.

Emission Limits

For an existing affected source, §63.3490(b) limits organic HAP emissions to no more than those listed in Table 2 to 40 C.F.R. 63 Subpart KKKK, or the option to reduce organic HAP emissions according to Table 3 of Subpart KKKK. For the sheet coater LTG-1, the permittee has elected to control HAP emissions according to Table 3 of Subpart KKKK, which is the *Control efficiency/outlet concentration option* specified in §63.3491(d). Under this option, the permittee must reduce emissions of total HAP

from new sources by 95 percent, or achieve no more than 20 ppmvd at the control device outlet. The permittee will reduce emissions by 95 percent, rather than employing the outlet concentration option. The *Control Efficiency/outlet concentration option* requires the coater emissions' capture device to be a PTE as specified by EPA Method 204 of 40 C.F.R. Part 51, Appendix M. The permittee may actually use either compliance option (in Table 2 or Table 3) so long as the permittee uses the options in accordance with §63.3491, and documents and reports any switch between compliance options for any coating operation or group of coating operations. Since the permittee may also need flexibility to use the option under Table 1, the sheetcoating limit of 0.26 lb HAPs/gal solids limit has also been included in permit condition 5.1.1.

Operating Limits

In accordance with §63.3492(b), the permittee must meet the operating limits specified in Table 4 to Subpart KKKK. These limits must be established during the performance test according to the requirements of §§ 63.3550(a) and 63.3556(a), and must be met at all times after they are established. The applicable requirements from Table 4 to Subpart KKKK are given below in Table C:

Table C – Operating Limits for the LTG-1 Coater Line, Control Device, and PTE Capture System

Device	Operating Limit	Continuous Compliance Demonstration
Integrated Thermal Oxidizer (Control Device ID: 0003)	a. Average combustion temperature in each 3-hour block period must not fall below the combustion temperature limit established according to §63.3556(a) (5.1.3.).	i. Collect the combustion temperature data according to §63.3557(c) (3.2.9., 5.2.1.);
		ii. Reducing the data to 3-hour block averages (3.2.6.); and
		iii. Maintaining the 3-hour block average combustion temperature at or above the temperature limit established according to §63.3556(a) (5.1.3.).
PTE emission capture systems for LTG-1 coater (Em. Unit ID 007-01) [1]	a. The direction of the air flow at all times must be into the enclosure (5.1.4.); and	i. Collecting the direction of air flow, and the pressure drop across the enclosure (5.2.2.); and
	b. The pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 C.F.R. Part 51 (5.1.4.).	ii. Maintaining the pressure drop at or above the pressure drop limit, and maintaining the direction of air flow into the enclosure at all times (5.1.4.).

1. The average minimum facial velocity of air indicator of 200-fpm has not been included in the second and third columns in Table C since the permittee will use a pressure measuring device in the PTE to ensure compliance with the minimum pressure drop, 0.007 inch of H_2O.

Work Practice Plan

Since the permittee is using the *Control efficiency/outlet concentration option* to comply with applicable emission limitations for the LTG-1 sheet coater line, §63.3493(b) requires the permittee to develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings. The LTG-1 coater line must be included in the plan, which has been discussed above in Determination and Justifications, 1.c. Refer to permit condition 3.1.16. It should be noted that LTG-1 must be included in the plan upon startup of LTG-1, according to §63.3550(a)(2).

Startup, Shutdown, and Malfunction Plan (SSMP)

In accordance with §63.3500(c), the permittee must develop and implement a written SSMP according to the provisions in 40 C.F.R. §63.6(e)(3), for the LTG-1 coater, including the capture system and thermal oxidizer (Control Device ID 0003). Since the SSMP encompasses multiple types of equipment (coaters, capture system, and thermal oxidizer), this permit condition will be listed under the facility-wide requirements as permit condition 3.1.17.

Testing

Applicable requirement §63.3550(a)(1) requires the permittee to conduct a performance test to establish the operating limits required by §63.3492 no later than 180 days after the applicable compliance date (i.e., initial startup date for LTG-1). For this testing, refer to permit condition 5.3.4.

Recordkeeping

For the time period between initial startup and completion of the performance testing, the recordkeeping requirement §63.3550(a)(4) has been set forth as condition 5.4.5. Also, refer to the discussion of recordkeeping in 1.c. of this Fact Sheet, which is applicable to the LTG-1 coater. Refer to permit conditions 5.4.2., 5.4.3., 3.4.6., and 3.4.7.

Reporting

The reporting requirements pursuant to Subpart KKKK for the LTG-1 coater are set forth in the following Table D.

Table D

Applicable Requirement	Description of Requirement	Permit Condition
§63.3511(a)	Semiannual compliance report (due dates, general, contents)	3.5.12.
§63.3511(b)	Reporting of performance test results	3.5.13.
§63.3511(c)	Startup, shutdown, malfunction reports	3.5.14.

In keeping with the applicability discussion above, the NOCS is required for the *affected source* (i.e., the existing facility as a whole), and not for an individual emission unit, such as the new LTG-1 coater. Therefore, there is no separate NOCS requirement for the LTG-1 line alone.

c. **40 C.F.R. Part 64 – *Compliance Assurance Monitoring (CAM)***

The LTG-1 sheet coater and oven (Em. Unit IDs 007-01 and 007-02) emit VOC, HAP, and other criteria pollutants (listed in the application). The emissions from these sources are captured by an EPA Method 204 permanent total enclosure (PTE) and are routed to an integrated thermal oxidizer (Control Device ID 0003). The emission units, capture systems, and control device are subject to 40 C.F.R. Part 64 for pollutants they emit, except HAP, since the system meets all of the applicability criteria set forth by 40 C.F.R. §64.2(a) and is not exempt in accordance with §64.2(b). The applicable regulatory citation(s) of 40 C.F.R. 64 will be used with permit conditions that regulate emissions of pollutants other than HAP. Though the capture and control system destroys HAP, it should be noted that 40 C.F.R. 64 does not directly apply to the control of HAP emissions from the emission units since the HAP emissions are regulated by the applicable requirements of 40 C.F.R. Part 63 Subpart KKKK.

The following Table E outlines the requirements of the CAM plan for the capture system and control device, which together control emissions from the LTG sheet coater and oven.

Table E – CAM Plan for LTG-1 Coater and Oven (Em. Unit IDs: 007-01 and 007-02), PTE Capture System, and Thermal Oxidizer (Control Device ID: 0003)

Criteria	Indicator No.1 of 2	Indicator No.2 of 2
I. Indicator	Combustion chamber temperature (permit condition 5.2.1.)	Differential pressure at PTE (permit condition 5.2.2.)
Measurement Approach	Thermocouple in combustion chamber with output to continuous data recorder (permit condition 5.2.1.)	Pressure sensor installed inside PTE with output to continuous data recorder (permit condition 5.2.2.)
II. Indicator Range	The temperature must be maintained at a minimum of 1,400 °F (5.1.3.). An excursion is defined as recorded temperature readings more than 50°F	An excursion is defined as recorded differential pressure readings less than 90% of the limit in permit condition 5.1.4. for a period of time in excess of 30

Table E – CAM Plan for LTG-1 Coater and Oven (Em. Unit IDs: 007-01 and 007-02), PTE Capture System, and Thermal Oxidizer (Control Device ID: 0003)		
Criteria	Indicator No.1 of 2	Indicator No.2 of 2
	below the limit in 5.1.3. for a period of time in excess of 3 hours (permit conditions 5.2.1.). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.11.).	minutes (permit condition 5.2.2.). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.11.).
QIP threshold	No more than nine (9) excursions during a 6-month semiannual reporting period (permit conditions 3.2.7. and 3.2.8.).	No more than nine (9) excursions during a 6-month semiannual reporting period (permit conditions 3.2.7. and 3.2.8.).
III. Performance Criteria		
- Data Representativeness	The thermocouple is located in the incinerator combustion chamber as an integral part of the incinerator design. The sensor must have an accuracy of ± 1.2 °C or ± 1.0 percent of the temperature being measured expressed in degrees Celsius, whichever is greater (permit condition 5.2.1.).	The pressure sensor is installed inside the PTE capture hood. The device will have an accuracy sufficient to demonstrate compliance with appropriate pressure limits/thresholds (permit condition 5.2.2. and 5.3.3.).
- Verification of Operational Status	The permittee has proposed to perform monthly verification of data collection to ensure proper recordkeeping by checking if there are any gaps in the data acquisition due to software problems (permit condition 3.2.2.).	The permittee has proposed, to perform monthly verification of data collection to ensure proper recordkeeping by checking if there are any gaps in the data acquisition due to software problems (permit condition 3.2.2.).
- QA/QC Practices and Criteria	The thermocouple must be calibrated minimally on an annual basis and properly maintained (permit conditions 5.3.2. and 3.2.4.)	The pressure transducer must be calibrated minimally on an annual basis and properly maintained (permit condition 5.3.3. and 3.2.4.).
- Monitoring frequency	Measured continuously (permit conditions 3.2.3., 3.2.5., and 3.2.6.)	Measured continuously (permit conditions 3.2.3., 3.2.5., and 3.2.6.)
- Data Collection Procedure	Data point collected at least every 20 seconds (permit condition 3.2.6.)	Data point collected at least every 20 seconds (permit condition 3.2.6.)
- Averaging Period	45 consecutive points averaged for one (1) 15-minute interval. One average number recorded every 15 minutes and four numbers recorded per hour at evenly spaced intervals (permit condition 3.2.6.).	45 consecutive points averaged for one (1) 15-minute interval. One average number recorded every 15 minutes and four numbers recorded per hour at evenly spaced intervals (permit condition 3.2.6.).

d. **Recordkeeping**

Condition 4.4.1. is a general recordkeeping requirement, and has been cited in "boilerplate" condition 3.4.1.

Condition 4.4.4. is a recordkeeping requirement for both LTG-1 and the Planeta Press. This most recent NSR permit no longer requires the permittee to report the records every quarter. The permittee now must only keep such records on hand, and be able to certify and report them at the Secretary's request. This requirement is permit condition 5.4.1.

3. **Planeta Press and Coater, Line PC-8 (Emission Unit IDs 006-01 and 006-02)**

a. **R13-2295C Conditions**

Condition 4.1.10. sets the VOC and HAP limits for this equipment. Refer to permit condition 6.1.2.

Condition 4.4.4. is a recordkeeping requirement for both LTG-1 and the Planeta Press. This most recent permit no longer requires the permittee to report the records every quarter. The permittee now must only keep such records on hand. and be able to certify and report them at the Secretary's request. This requirement is permit condition 6.4.4.

b. **40 C.F.R. 63 Subpart KKKK – *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans***

Applicability

The Planeta Press and Coater line PC-8 is subject to this NESHAP since the equipment performs *sheetcoating*, as described in §63.3481(a)(2), and is not excepted by §63.3481(c). The equipment will comply with the requirements for an *existing affected source*, in accordance with §63.3482(e).

Compliance Date, Initial Compliance Period and Demonstration, and NOCS

Since the Planeta Press is part of an *existing* affected source, the requirements for the compliance date, initial compliance period and demonstration, and the NOCS related to the Line PC-8 are identical to those requirements discussed above (in Determination and Justifications, 1.c.) for the coater lines C-1 through C-6. The initial compliance period and demonstration are described in §63.3530 specifically for the *Emission rate without add-on control option* (compliance option described in §63.3491(b)), which will be used to demonstrate compliance with the applicable emission limit.

Emission Limits

In accordance with §63.3490(b), the Planeta Press PC-8 will meet the applicable emission limit in Table 2 of Subpart KKKK, which is 0.26 lb HAP/gal solids. The permittee has stated in technical correspondence (8/02/07 e-mail) that compliance with the emission limit will be achieved by employing the *Emission rate without add-on control option*, given under §63.3491(b). To demonstrate initial compliance using the *Emission rate without add-on control option*, the permittee has elected to use the procedures prescribed in §63.3531(a) through (g).

The writer noticed in the NOCS that the permittee averaged all sixteen coaters at the facility to determine compliance during the initial compliance demonstration. These coaters include the four (4) lines C-1 through C-4 in Building 33 (permit part 1 of 2, issued on March 28, 2007). From Building 720 (permit part 2 of 2; *i.e.*, this renewal) the quantity includes coaters C-1 through C-6, LTG C-7, PC-4, PC-5, PC-6, PC-7, and the Planeta Press PC-8. According to the renewal application, line PC-3 is removed from service. However, according to the permittee's comments on the pre-draft permit (3/14/08 email), PC-3 has not been removed from service. Furthermore, the NOCS specifically states that the Planeta Press (Em. Unit ID 006-01, 006-02) was included in the averaging. The point of this discussion is that the Planeta Press PC-8 is complying with the MACT using the *Emission rate without add-on control option*, given under §63.3491(b). The other coaters are complying using the *Emission rate with add-on control option*, given under §63.3491(c). According to §63.3541(a), "When calculating the organic HAP emission rate according to this section, do not include any coatings or thinners used on coating operations for which you use the compliant material option, the emission rate without add-on controls option, or the control efficiency/outlet concentration option." Clearly, the MACT does not allow "averaging" of coatings, thinners, emissions, etc. between equipment using the *Emission rate with add-on control option* and equipment using *Emission rate without add-on control option*. Furthermore, this type of exclusive language is found in each of the four compliance options (i.e., §§ 63.3521, 63.3531, 63.3541, 63.3551), and is therefore not limited to this particular combination of compliance options. To ensure that this stipulation of not "averaging" between compliance options is met, permit condition 3.1.15. has been written as a facility-wide condition

concerning all units using the *Emission rate with add-on control option* (the predominant option being employed). Similarly, condition 6.4.2. for the Planeta Press PC-8 has been written to ensure that materials used on sources using other compliance options are not included with the Planeta Press, which is using the *Emission rate without add-on control option*.

§63.3531(h) specifies the requirements for the initial compliance demonstration, while §63.3532 sets forth the requirements for demonstrating continuous compliance with the applicable emission limit. These requirements, along with the corresponding permit conditions, are described in the following Table F:

Table F

Applicable Requirement	Description of Requirement	Permit Condition(s)
§63.3531(h)	Organic HAP emission rate for initial 12-month compliance period must be less than or equal to the applicable emission limit; keep appropriate records per §§ 63.3512 and 63.3513; NOCS contents.	6.1.1., 6.4.1., 6.4.3., 3.4.6., 3.4.7.
§63.3532(a)	The organic HAP emission rate must not exceed the applicable emission limit. A 12-month compliance period is defined.	6.1.1.
§63.3532(b)	If the organic HAP emission rate for any 12-month compliance period exceeds the applicable emission limit, this is a deviation and must be reported according to §§63.3510(c)(6) and 63.3511(a)(6).	6.5.1., 3.5.12.
§63.3532(c)	Semiannual compliance report requirements.	6.5.1., 3.5.12.
§63.3532(d)	Must maintain records according to §§ 63.3512 and 63.3513.	6.4.1., 6.4.3., 3.4.6., 3.4.7.

Non-Applicability of Operating Limits, Work Practice Standards, Work Practice Plan and SSM Plan to the Planeta Press only

The *Emission rate without add-on control option* set forth in §63.3491(b) will be used by the permittee to meet the applicable emission limit for the Planeta Press. According to §63.3492(a) and §63.3531, the permittee is not required to meet any operating limits for emission units, capture systems, or control devices where the *Emission rate without add-on control option* is used. According to §63.3493(a) and §63.3531, there are no specific work practice standards to meet (for the Planeta Press only) since the *Emission rate without add-on control option* will be used. Based upon the non-applicability of requirements in §63.3493(b) and §63.3500(c) to the Planeta Press, it was concluded that the Planeta Press does not have to be included in either the Work Practice Plan or the SSM Plan, respectively (permit conditions 3.1.16 and 3.1.17.).

Testing

The applicable procedures set forth in §63.3531(a), (b), and (c) either directly refer to test methods, or refer to methods already set forth in §63.3521 (*compliant material option*). For instance, applicable requirement §63.3531(a) refers to §63.3521(a), which allows five different options for determining the mass fraction of organic HAP for each material used. According to technical correspondence (8/02/2007 e-mail), the permittee will use information from the supplier or manufacturer of the material (§63.3521(a)(4)) to determine mass fraction of HAP. This particular option states that if there is ever disagreement between the manufacturer's information and the results of any testing conducted according to §63.3521(a)(1) through (3), then test results will take precedence (unless successfully demonstrated by the permittee that they should not). The point of the preceding discussion is that there is a possibility of future testing. However, there are no current or ongoing testing requirements pursuant to Subpart KKKK for the Planeta Press PC-8.

Recordkeeping

Applicable requirement §63.3531(h) requires the permittee to maintain records in accordance with §§63.3512 and 63.3513. Refer to permit conditions 3.4.6. and 3.4.7., which contain the requirements associated with the *Emission rate without add-on control option*.

Reporting

Reporting has been discussed above in 1.c. of this Fact Sheet. It should be noted that applicable requirement §63.3531(h) requires submitting of a statement of compliance within the NOCS. Refer to permit condition 3.5.12. regarding the semiannual compliance report requirements.

Non-applicability of Performance Test Reports and Startup, Shutdown, Malfunction Reports to the Planeta Press only

The Performance Test Reports (permit condition 3.5.13.) and Startup, Shutdown, Malfunction Reports (permit condition 3.5.14.) are only required for equipment that comply with applicable emission limits using the *Emission rate with add-on controls option* or the *Control efficiency/outlet concentration option*. Since the Planeta Press does not use either of these options, but instead will use the *Emission rate without add-on control option*, these reports are not applicable for the Planeta Press.

c. **40 C.F.R. Part 64 – *Compliance Assurance Monitoring (CAM)***

The Planeta press does not use a *control device* (which is defined in 40 C.F.R. §64.1, and that definition was used for this non-applicability determination) to achieve compliance with any emission limitation or standard; therefore, the Planeta press is exempt from 40 C.F.R. Part 64 since it does not meet the applicability requirement in 40 C.F.R. §64.2(a)(2). The reason this statement of non-applicability is given here and not in the Non-applicability Determinations section of this Fact Sheet is due to 40 C.F.R. Part 64 being applicable to other emission units and emission control devices at the facility.

4. **Coater Lines PC-3 through PC-7 (003-03, 003-05, 003-07, 003-09), Emissions Capture System, and Regenerative Thermal Oxidizers (Control Device ID 0001)**

a. **R13-2295C Conditions**

There are no conditions in R13-2295C that directly regulate the lithography presses. However, there are requirements (e.g., 4.1.13.) affecting the regenerative thermal oxidizer (Control Device ID 0001) which controls the emissions from the presses. Such requirements have been discussed above in Section 1 of Determinations and Justifications, and the requirements will appear in the permit as previously discussed.

b. **45CSR6 – *To Prevent and Control Air Pollution from Combustion of Refuse***

The emissions of VOC and HAP from the coaters and ovens are destroyed by the regenerative thermal oxidizer identified as Control Device ID 0001, which subsequently emits particulate matter. Active permit R30-00900015-2002, condition E.1.a., specified a PM emission limit of 1.4 lb per hour per RTO. The underlying requirement for the permit condition is 45CSR§6-4.1. Condition E.1.b. established the monitoring required to demonstrate compliance with the 1.4 lb/hr per RTO limit. There have been no changes in the facility that necessitate alteration of the PM limit or associated monitoring. Therefore, the same requirements have been established in the renewal permit as conditions 7.1.3. and 7.2.4.

c. **40 C.F.R. 63 Subpart KKKK – *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans***

Applicability

The sheet coaters are subject to this NESHAP since the equipment performs *sheetcoating*, as described in §63.3481(a)(2), and are not excepted by §63.3481(c). The emission units are part of a facility that is considered *existing*, in accordance with §63.3482(e).

Compliance Date, Initial Compliance Period and Demonstration, and NOCS

The requirements for the compliance date, initial compliance period and demonstration, and the NOCS related to the coater lines PC-3 through PC-7 are identical to those requirements discussed above (in Determination and Justifications, 1.c.) for the coater lines C-1 through C-6. Refer to permit condition 3.1.15. regarding the compliance date, initial compliance period, and initial compliance demonstration.

Emission Limits and Operating Limits

For an existing affected source, §63.3490(b) limits organic HAP emissions to no more than those listed in Table 2 to 40 C.F.R. 63 Subpart KKKK (0.26 lb HAP/gal solids), or the option to reduce organic HAP emissions according to Table 3 of Subpart KKKK (95% HAP emissions reduction or outlet concentration of 20 ppmvd). The Table 3 compliance options are specific to the *Control Efficiency/outlet concentration option* specified in §63.3491(d), which requires the emissions capture device be a Method 204 PTE. The enclosure around the coaters is not a Method 204 PTE. Therefore, the *Control Efficiency/outlet concentration option* specified in §63.3491(d) may not be used for these coaters to comply with Subpart KKKK, and therefore the 95% reduction or 20 ppmvd limits cannot be applied to these coaters. The permittee stated in the renewal application (*i.e.*, Attachment E) and in technical correspondence (6/14/2007 e-mail to the permit writer) that these coaters will comply with the 0.26 lb HAP/gal solids limit in Table 2 to Subpart KKKK. Compliance with the HAP limit will be demonstrated using the *Emission rate with add-on controls option* specified in §63.3491(c) which employs continuous monitoring of the regenerative thermal oxidizer (Control Device ID 0001) combustion chamber temperature and oxidizer inlet duct pressure according to applicable requirements.

The applicable operating limits are set forth in §63.3492(b), which refers to Table 4 of Subpart KKKK. These limits must be established during the performance test according to the requirements of §63.3546, and must be met at all times after they are established. The parameters have already been established since the compliance date is in the past. The applicable requirements from Table 4 to Subpart KKKK are given below in Table G:

Table G – Operating Limits for PC-3 through PC-7 Coater Lines' Control Devices and Non-PTE Capture System

Device	Operating Limit	Continuous Compliance Demonstration
Regenerative Thermal Oxidizers (Control Device ID 0001)	a. Develop and implement a valve inspection plan according to §63.3546(c) (permit condition 4.2.3.); and	i. Maintaining an up-to-date valve inspection plan. If a problem is discovered during an inspection required by §63.3546(c), you must take corrective action as soon as practicable (permit condition 4.2.3.).
	b. Average combustion temperature in each 3-hour block period must not fall below the combustion temperature limit established according to §63.3546(a) (permit condition 4.1.1.).	ii. Collect the combustion temperature data according to §63.3547(c) (permit condition 7.2.3. and 4.2.1.);
		iii. Reducing the data to 3-hour block averages; and (permit condition 3.2.6.)
		iv. Maintaining the 3-hour block average combustion temperature at or above the temperature limit established according to §63.3546(a) (permit condition 4.1.1.).
Non-PTE emission capture system for coaters (Em. Unit IDs 003-01, 003-03, 003-05, 003-07, 003-09)	a. The average duct static pressure, in each duct between a capture device and the regenerative thermal oxidizer inlet, in each 3-hour period (permit condition 3.2.6.b.) must not fall below the duct pressure limit (permit condition 7.1.2.) established for that capture device according to §63.3547(g).	i. Collecting the duct static pressure for each capture device according to §63.3546(g) (permit condition 7.2.2.);
		ii. Reducing the data to 3-hour block averages; and (permit condition 3.2.6.b.)
		iii. Maintaining the 3-hour block average duct static pressure for each capture device at or above the duct static pressure limit (permit condition 7.1.2.).

Work Practice Plan

Since the permittee is using the *Emission rate with add-on control option* to comply with emission limitations on the coaters, §63.3493(b) requires the permittee to develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings. The plan has been discussed above in 1.c. of this Fact Sheet. Refer to permit condition 3.1.16.

Startup, Shutdown, and Malfunction Plan (SSMP)

Since the sheet coaters use an emissions capture system and regenerative thermal oxidizer (Control Device ID 0001) to comply with Subpart KKKK, §63.3500(c) requires the permittee to include the coaters, capture devices, and control devices in a written SSMP as previously discussed in 1.c. of this Fact Sheet. Refer to permit condition 3.1.17.

Testing

For the initial compliance demonstration completed during the initial compliance period, §63.3540(b)(3) requires use of the results of the performance testing conducted according to §§ 63.3543 (general requirements), 63.3544 (capture system efficiency), and 63.3545 (control device destruction efficiency). Therefore, performance testing must have been performed prior to the compliance date, which starts the initial compliance period. Since the compliance date (November 13, 2006) is in the past, there are no other performance tests to be completed, and there are no ongoing or periodic performance tests to comply with Subpart KKKK. Therefore, permit subsection 7.3. will not have any Subpart KKKK requirements.

Recordkeeping

The permittee must maintain a records in accordance with §§63.3512 and 63.3513. Specific to the coaters, which are using the *Emission rate with add-on controls option,* §63.3512(c)(4) requires records of the calculations specified in §63.3512(c)(4)(i)-(v). Refer to permit condition 3.4.6.

Reporting

§63.3511 sets forth the requirements for the Subpart KKKK semiannual compliance report, which is discussed above in 1.c. Refer to permit condition 3.5.12. for the semiannual compliance report requirements for the coaters.

d. **40 C.F.R. Part 64 – *Compliance Assurance Monitoring (CAM)***

The sheet coaters emit VOC and HAP, which are captured by a hood over each coater and routed to the regenerative thermal oxidizers (Control Device ID 0001). The emission units, capture systems, and control device are subject to 40 C.F.R. Part 64 for the pollutant VOC since the system meets all of the applicability criteria set forth by 40 C.F.R. §64.2(a) and is not exempt in accordance with §64.2(b). The applicable regulatory citation(s) of 40 C.F.R. 64 will be used with permit conditions that set forth monitoring/recordkeeping/reporting (MRR) requirements for control of VOC emissions. Though the capture and control system destroys HAP emitted from the coaters, it should be noted that 40 C.F.R. 64 does not directly apply to the control of HAP emissions from the emission units since the HAP emissions are regulated by the applicable requirements of 40 C.F.R. Part 63 Subpart KKKK. The following Table H outlines the requirements of the CAM plan for the capture system and control device, which together control emissions from the sheet coaters PC-3 through PC-7.

Table H – CAM Plan for Sheet Coaters and Ovens (Em. Unit IDs: 003-03, 003-04, 003-05, 003-06, 003-07, 003-08, 003-09, 003-10), non-PTE Hood-type Emissions Capture System, and Regenerative Thermal Oxidizer (Control Device ID 0001)

Criteria	Indicator No.1 of 2 [1]	Indicator No.2 of 2
I. Indicator	Combustion chamber temperature (permit condition 4.2.1.)	Differential pressure at oxidizer inlet duct (permit condition 7.2.2.)
Measurement Approach	Thermocouple in combustion chamber with output to continuous data recorder (permit condition 4.2.1.)	Pressure sensor installed inside oxidizer inlet duct with output to continuous data recorder (permit condition 7.2.2.)
II. Indicator Range	The temperature must be maintained at a minimum of 1,450 °F (4.1.1.). An excursion is defined as recorded temperature readings more than 50°F below the limit in 4.1.1. for a period of time in excess of 3 hours (permit conditions 7.2.3., and 4.2.1.). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.11.).	An excursion is defined as recorded differential pressure readings less than 90% of the limit in permit condition 7.1.2. for a period of time in excess of 30 minutes (permit conditions 7.2.2.). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.11.).
QIP threshold	No more than nine (9) excursions during a 6-month semiannual reporting period (permit conditions 3.2.7. and 3.2.8.).	No more than nine (9) excursions during a 6-month semiannual reporting period (permit conditions 3.2.7. and 3.2.8.).
III. Performance Criteria		
- Data Representativeness	The thermocouple is located in the incinerator combustion chamber as an integral part of the incinerator design. The sensor must have an accuracy of ± 1.2 °C or ± 1.0 percent of the temperature being measured expressed in degrees Celsius, whichever is greater (permit condition 4.2.1., and 4.3.1.).	The pressure sensor is installed inside the oxidizer inlet duct. The device will have an accuracy sufficient to demonstrate compliance with appropriate pressure limits/thresholds (permit conditions 7.3.1.).
- Verification of Operational Status	The permittee has proposed to perform monthly verification of data collection to ensure proper recordkeeping by checking if there are any gaps in the data acquisition due to software problems (permit condition 3.2.2.).	The permittee has proposed, to perform monthly verification of data collection to ensure proper recordkeeping by checking if there are any gaps in the data acquisition due to software problems (permit condition 3.2.2.).
- QA/QC Practices and Criteria	The thermocouple must be calibrated minimally on an annual basis and properly maintained (permit conditions 7.3.2., 4.3.1. and 3.2.4.)	The pressure transducer must be calibrated minimally on an annual basis and properly maintained (permit condition 7.3.1. and 3.2.4.).
- Monitoring frequency	Measured continuously (permit conditions 3.2.3., 3.2.5., and 3.2.6.)	Measured continuously (permit conditions 3.2.3., 3.2.5., and 3.2.6.).
- Data Collection Procedure	Data point collected at least every 20 seconds (permit condition 3.2.6.)	Data point collected at least every 20 seconds (permit condition 3.2.6.).
- Averaging Period	45 consecutive points averaged for one (1) 15-minute interval. One average number recorded every 15 minutes and four numbers recorded per hour at evenly spaced intervals (permit condition 3.2.6.).	45 consecutive points averaged for one (1) 15-minute interval. One average number recorded every 15 minutes and four numbers recorded per hour at evenly spaced intervals (permit condition 3.2.6.).

(1) Indicator No.1 of 2 in Table H is the same as Indicator No. 1 of 2 in Table B in section 1.c.

The regenerative thermal oxidizer (Control Device ID) destroys emissions from the coater lines (C-1 through C-6), as wells as from the lines PC-3 through PC-7. This explains why the combustion chamber temperature (indicator No.1 of 2 in Table H above) is the same for both groups of emission units. Thus, the thermocouple calibration requirement in permit condition 7.3.2. refers to permit

condition 4.3.1. This also explains why the monitoring of RTO temperature for the Coaters C-1 through C-6 (permit condition 4.2.1.) will also fulfill the monitoring required for the coaters PC-3 through PC-7 (7.2.3.). However, the differential pressure indicator is different for the lines PC-3 through PC-7. For these lines, the pressure measuring device is located in the inlet duct of the RTO. For the coaters C-1 through C-6, the pressure measuring device is located in the PTE capture device of the coaters.

5. **Relationship of the permittee to Ball Metal Food Container Corp. (Facility ID 009-00027)**
The permittee's parent company, Ball Corporation, acquired the U.S. Can facility (Facility ID 009-00015), and renamed the facility the Ball Aerosol and Specialty Container Corporation (the permittee), and has continued using the facility ID 009-00015. For the renewed permit for neighboring Ball Metal Food Container Corp. (Facility ID 009-00027), issued on March 28, 2007, the DAQ determined that the permittee (009-00015) and the Ball Metal Food Container Corp. facility (009-00027) are contiguous and adjacent and are under common control, and as such, the facilities are considered to be one "major source" as defined in 45CSR§30-2.26. During the writing of this renewal permit, the permittee requested that DAQ combine both facilities into one facility ID and company name. This explains why this renewed permit is for Ball Metal Food Container Corporation (instead of Ball Aerosol and Specialty Container), and why this permit's number is R30-00900027-2008 (Part 2 of 2). It may be advisable for the permittee to administratively amend (pursuant to 45CSR§30-6.4.) the Title V permit issued on March 28, 2007 to the Ball Metal Food Container Corp. to indicate that it is Part 1 of 2. Alternatively, if another permit action occurs in part 1 of 2, this change could be written at that time.

6. **45CSR7 – *To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations***
Current Title V permit R30-00900015-2002, conditions D.1.h. and D.1.i. set forth facility-wide requirements corresponding to 45CSR§§7-5.1. and 5.2., respectively. These requirements have been carried over to the renewal permit as conditions 3.1.13. and 3.1.14., respectively.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. **45CSR2 – *To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers***. All manufacturing process combustion sources located at the facility (at the time of this renewal) are not classified as *fuel burning units*, according to the definition in 45CSR§2-2.10. The definition specifically describes a fuel burning unit as a device that produces heat or power by *indirect heat transfer*. None of the sources produce heat or power by indirect heat transfer; therefore, these sources are not subject to 45CSR2.

2. **45CSR10 – *To Prevent and Control Air Pollution from the Emission of Sulfur Oxides***. None of the combustion sources at the facility emit more than 500 pounds per year of sulfur oxides; therefore, none of the manufacturing process combustion sources are subject to the 2,000 ppmv limit (45CSR§10-4.1.) in accordance with 45CSR§10-4.1.e. Furthermore, all manufacturing process combustion sources located at the facility (at the time of this renewal) are not classified as *fuel burning units*, according to the definition in 45CSR§10-2.8. The definition specifically describes a fuel burning unit as a device that produces heat or power by *indirect heat transfer*. None of the sources produce heat or power by indirect heat transfer; therefore, these sources are not subject to 45CSR10.

3. **45CSR21 – *Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds***. The facility is not located in Cabell, Kanawha, Putnam, Wayne, or Wood counties and is not subject to this rule according to 45CSR§21-1.1.

4. **45CSR27 – *To Prevent and Control the Emissions of Toxic Air Pollutants.*** The facility does not emit any of the listed toxic air pollutants in quantities greater than the indicated thresholds (i.e. formaldehyde emissions less than 1,000 pounds).

5. **45CSR29 – *Emission Statements for Volatile Organic Compounds*.** This facility is located in Brooke County, West Virginia. Since it is not located in Putnam, Kanawha, Cabell, Wayne, Wood, or Greenbrier Counties, 45CSR29 does not apply to this facility according to 45CSR§29-3.3.

6. **40 C.F.R. Part 60 Subpart TT – *Standards of Performance for Metal Coil Surface Coating*.** This facility cuts the metal coils prior to coating, and as such, Subpart TT is not applicable. However, since the facility is similar to Subpart TT type facilities and has approximately the same capture and destruction rates, there were conditions in R13-2295A that required emission tests to be done in accordance with methods set forth in 40 C.F.R. 60 Subpart TT.

7. **40 C.F.R. Part 63 Subpart T – *National Emission Standards for Halogenated Solvent Cleaning*.** The permittee does not use any halogenated solvents in a concentration greater than 5 percent by weight as a cleaning and/or drying agent in the parts washers at the facility.

8. **40 C.F.R. Part 63 Subpart SSSS – *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil*.** According to 40 C.F.R. §63.5090(a), this subpart applies to each facility that is a major source of HAP at which a coil coating line is operated. The facility does not operate a *coil coating line* (which is defined in 40 C.F.R. §63.5110); therefore, 40 C.F.R. Part 63 Subpart SSSS is not applicable to the facility.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date:	April 11, 2008
Ending Date:	May 12, 2008

All written comments should be addressed to the following individual and office:

Denton McDerment
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Denton McDerment
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

On April 25, 2008, Mr. John Munsch (the environmental contact for Ball Corp.) sent an e-mail to the writer asking if it would be possible to shorten the term of the Part 2 permit so that it expires on the same day as Part 1. The permittee's goal is to combine these parts into one document at the next renewal. On May 7, 2008, the writer sent a reply e-mail to Mr. Munsch stating that DAQ will shorten the term of Part 2, and Ball will combine the applications at renewal of Part 1, and DAQ will issue the renewal as one permit. Mr. Munsch agreed that Parts 1 and 2 will be combined, and the renewal application (that includes both parts) is due on or before September 28, 2011.

No comments were received from U.S. EPA.

WV Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Telephone Number: (304) 926-0475
Fax Number: (304) 926-0478

TITLE V OPERATING PERMIT SEMI-ANNUAL MONITORING REPORT

Name of Permittee: WVA Manufacturing, LLC	Name of Facility: same as name of permittee
Permit Number: R30-01900001-2006	AFS Plant ID Number: 03-54-01900001
Mailing Address: Rte. 60 East PO Box 248 Alloy WV 25004	Contact Person: Roger Wagner Title: Manager - SHEA Telephone: (304) 779-3379
For the reporting period beginning 07 / 01 / 2009 and ending 12 / 31 /2009	
Based upon the specific test methods, monitoring, record keeping and/or reporting required under the permittee's Title V Operating Permit and any other information reasonably available, I, the undersigned, hereby certify for the reporting period stated above that based on information and belief formed after reasonable inquiry, the statements and information in this document and attachments are true, accurate, and complete.[1]	
Responsible Official[2]	
Name: S.A. Pralley	Title: Plant Manager
Signature:	Date:
Note: Please check all required attachments included with this Semi-Annual Monitoring Report.	
☒ Form B - Semi-Annual Monitoring Report	☒ Form C - Deviation Report

[1] Please note that the West Virginia Code states that any person who knowingly misrepresents any material fact in an application, record, report, plan or other document filed or required to be maintained is guilty of a misdemeanor and may be subject to fines and/or imprisonment in accordance with W.VA. Code §22-5-6(b).

[2] A Responsible Official as defined by 45CSR§30-2.38. must sign this certification.

Form B - Semi-Annual Monitoring Report

Permittee: WVA Manufacturing, LLC	Facility: same as name of permittee	Permit Number: R30-01900001-2006

For the reporting period beginning 07/ 01/ 09 and ending 12/ 31/09

Emission Unit ID	Monitoring, Data, or Analysis Required by the Permit	Separate Monitoring Report?	Date of Separate Report Submittal or Attachment ID
003-01	VEs required by section 5.2.3(b)	☐ Yes x☐ No	MM / DD / YYYY Attachment ID:
003-03	VEs required by section 5.2.3(b)	☐ Yes x☐ No	MM / DD / YYYY Attachment ID:
003-04	VEs required by section 5.2.3(b)	☐ Yes x☐ No	MM / DD / YYYY Attachment ID:
003-06	VEs required by section 5.2.3(b)	☐ Yes x☐ No	MM / DD / YYYY Attachment ID:
003-07	VEs required by section 5.2.3(b)	☐ Yes x☐ No	MM / DD / YYYY Attachment ID:
Groups 002, 004, 005 and 006	Ves required by 3.2.1	☐ Yes x☐ No	MM / DD / YYYY Attachment ID:
NA		☐ Yes ☐ No	MM / DD / YYYY Attachment ID:

All sources must complete this section. Use the table above to summarize all required monitoring, data, or analyses for the 6-month period. In the first column, list the emission units upon which the monitoring was performed. Use any Emission Unit ID's assigned in the permit, if no ID's in permit, generally describe. In the second column, describe the monitoring, data, or analysis and cross-reference the relevant permit term. In the third column indicate whether a separate monitoring report is required. Lastly, complete the fourth column only if you are required to submit a separate monitoring report. If submitted previously, indicate the date you submitted it; if submitted for the first time as an attachment to this form, assign an attachment identification (ID), mark the attachment with that ID, and attach the separate monitoring report to this form.

Form C – Deviation Report[1]

Permittee: WVA Manufacturing, LLC	Facility: same	Permit Number: R30-01900001-2006

For the reporting period beginning 07/ 01/ 09 and ending 12/ 31/09

Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	What was the deviation[2] from the Term or Condition?	What was the cause for the deviation[2] And what type of corrective measures were taken?	Deviation Time Period Date (mo/day/yr) Time (hr:min)	
0005	3.1.11	VEs	>20% opacity	Tapping gate out of service due to broken chain. At times the emission overwhelm the tpahole collection system.	Beginning	07/04/09 04:30 ☐am X☐pm
					Ending	07/05/09 10:30 x ☐am ☐pm
0005	3.1.11	VEs	>20% opacity	Capped 1 bag in No. 1 Compartment.	Beginning	07/03/09 09:00 ☐am x☐pm
					Ending	07/03/09 09:30 ☐am x☐pm
0005	3.1.11	VEs	>20% opacity	Capped 3 bags in No. 10 Compartment	Beginning	07/04/09 08:15 X☐am ☐pm
					Ending	07/04/09 09:45 X☐am ☐pm
0005	3.1.11	VEs	>20% opacity	Capped 4 bags in No. 9 Compartment.	Beginning	07/07/09 08:30 x☐am ☐pm
					Ending	07/07/09 09:45 x☐am ☐pm
0006	3.1.11	VEs	>20% opacity	Capped 2 bags No. 6 Compartment	Beginning	07/15/09 1:30 ☐am X☐pm
					Ending	07/15/09 2:00 ☐am X☐pm
0012	3.1.11	VEs	>20% opacity	Capped 3 bags in No. 4 Compartment	Beginning	08/04/09 08:15 X☐am ☐pm
					Ending	08/04/09 09:30 X☐am X☐pm
0012	3.1.11	VEs	>20% opacity	Capped 1 bag in No. 8 Compartment	Beginning	09/03/09 09:00 x☐am ☐pm
					Ending	09/03/09 09:30 x☐am ☐pm

[1]If there are no deviations to report for this period, place "None" in the first row on the form.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

DATE : August 5, 2004

SUBJECT: Inspection Report of the Elkem Metals Facility in Alloy, WV

FROM: Jerome M. Curtin, Environmental Engineer, Lead Engineer for the Elkem Metals Facility, Air Enforcement Branch

VIA (REVIEWED BY): James Hagedorn, Environmental Scientist, Air Enforcement Branch

TO: Chris Pilla, Chief, Air Enforcement Branch
and
File Room

Address
P.O. Box 613; Route 60 East
Alloy, WV 25002

Enforcement Personnel
Jerry Curtin, Environmental Engineer, EPA,(215)814-3171
Jim Hagedorn, Environmental Scientist, EPA, (215) 814-2161

Alloy Steam Station of Elkem Metals Personnel and their Attorney
Roger Wagner, Senior Environmental Engineer/Safety, Elkem Metals, Route 60 East, Alloy, WV 25002, (304) 779-3379
David B. Barnhart, Manager of Power Facilities, Elkem Metals, Route 60 East, Alloy, WV 25002, (304)779-3316
David W. Renfrew, Director of Environmental Health and Safety, Elkem Metals, P.O. Box 266, Pittsburgh, PA 15230, (412) 299-7241
Barbara Little, Attorney, Jackson and Kelly, 1600 Laidley Tower, P.O. Box 553, Charleston, WV 25322, (304) 340-1355
Tom Kern, Technical Manager of Processes for furnaces 6 and 7, Elkem Metals, Route 60 East, Alloy, WV 25002, (304) 779-3209

Frank Bjorklund, Plant Manager, Elkem Metals, Route 60 East, Alloy, WV 25002, (304) 779-3368[1]

Steve Weber, Technical Manager of Processes for furnaces 14 and 15, Elkem Metals, Route 60 East, Alloy, WV 25002, (304) 779-3247[2]

Date of Inspection: 7/27/2004. EPA arrived on site at about 9:15 am.

Overview

Elkem Metals Inc operates a silicon manufacturing facility located in the town of Alloy, WV, which is approximately 30 miles southeast of the city of Charleston, WV. This facility also operates an electric generation plant on site for its own use. EPA examined the electric generation plant in August of 2002 as a non-regulated utility. During that inspection, EPA had some concerns regarding the opacity coming from the furnaces on site. This concern is detailed in EPA's inspection report of the Alloy Steam Station of Elkem Metals, dated 9/12/2002. At the time of the August 2002 inspection, Elkem indicated to EPA that furnaces 9 and 15 were subject to Subpart Z of the NSPS. (According to WVDEP, furnace 9 is no longer operational.) On December 16, 2002, WVDEP issued a new operational permit (R14-17) to Elkem metals for the operation of furnace 15[3]. EPA was on site on July 27, 2004 to re-examine any opacity issues with operational furnaces, to determine if those furnaces and boiler #4 were in compliance with WVDEP permit R14-17, to examine any NSPS issues dealing with furnace 15, and to confirm the shutdown of furnace 9.

Elkem Metals of Alloy, WV has a business name of Elkem Metals, Alloy, L.P. (Limited Partnership) and is owned by Elkem Metals, which in turn is owned by Elkem ASA of Norway.

Elkem Metal Plant in Alloy, WV produces silicon and ferro-silicon for use by the chemical and aluminum industry. The silicon is produced through the melting of silica in large furnaces on site. Elkem Metals has 6 such furnaces-furnaces numbers 3, 6, 7, 9, 14 and 15. Furnace 9 is currently "mothballed" and was originally shutdown in the 1980's but did operate for a few years in the late 1990's and early 2000's. It has been shutdown since. Its shutdown is market driven and there are no plans to reactivate it.

The plant began operations in the 1930's as a Union Carbide Plant. Elkem Metals purchased the plant from Union Carbide in about 1981.

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[1]EPA met Mr. Bjorklund when we entered the facility and he attended only the closing conference.

[2]Attended a portion of the morning meeting only

[3]This permit also included some regulation of furnaces 3, 6, 7 and 14 as well as boiler #4.

The 120 acre site lot on which the Elkem Metals-Alloy plant sits is owned by Elkem and is within the boundaries of the unincorporated town of Alloy, Fayette County, WV. There is also a 30 acre site, non contiguous to the plant which includes a solid waste landfill used only to dispose of solid waste from the Elkem plant. This landfill is east of the plant, on the other side of Route 60.

The Elkem manufacturing plant employs 230 employees, working 24/7 .

During this inspection, Mr. Roger Wagner, the Senior Environmental Engineer at Elkem, provided EPA with most of the overview and technical information about the Elkem Facility as well as some history of the operations. He is EPA's point of contact for this inspection at the Elkem plant.

Background of Electric/Steam Plant

There is no steam generation for any usage other than to drive one turbine generator to generate electricity. The company also can purchase electricity from the nearby large utility company, American Electric Power (AEP) This electrical generating plant has four built up boilers which could produce steam but currently only 1 boiler (#4) is operational. The facility also has 4 turbine generators but again only one (#3) is operational. Permit R14-17 restricts the facility to only operating Boiler #4. Boiler #4 is related to the operation of furnace #15 in that the net increase in emissions from furnace 15's reactivation was offset by reductions in emissions from boiler #4 from low Nox burners and low sulfur coal restrictions, thus "netting out" of PSD. Accordingly, the permit for the operation of furnace #15 also includes restrictions of the operation of boiler #4. Boiler #4 normally uses coal as its primary fuel.

Narrative

EPA personnel did a drive by examination of the facility that morning to re-examine any opacity coming from furnace hoods. We continued to examine these hoods throughout the day. We observed no significant opacity. At the time of the August 2002 inspection, EPA did have concern over opacity coming from the furnaces. The enclosed photos will show no opacity issues in 2004.

Jerry Curtin (the lead investigator) and Jim Hagedorn arrived on-site at 9:15 am. Also invited were the WVDEP air quality personnel but they could not attend. Jim and I identified ourselves to the Elkem personnel, and presented our EPA credentials/identification. I told the Elkem Metals personnel that EPA was on-site to perform a comprehensive investigation of the Elkem Metals Facility for compliance with the Clean Air Act, including PSD, NSPS, compliance with their existing permit and any issues which may deal with opacity coming from the furnaces. I explained that we previously visited the Alloy Steam Station of Elkem Metals in August of 2002 and that those issues were remaining from our previous inspection. I also reminded everyone that we are part of EPA Region III, headquartered in Philadelphia and that we inspected facilities in

Pennsylvania, Maryland, Virginia, Delaware and West Virginia and the District of Columbia.

I noted that prior to this inspection, EPA sent Elkem Metals Associates a June 28, 2004 inspection notification letter requesting that certain information be available during the inspection. EPA reviewed the information requested with personnel from Elkem Metals on July 27, 2004. Elkem Metals reviewed with EPA personnel all of the information requested and provided EPA with some of it as noted in this report. There is some information outstanding, also as noted in this report. Elkem Metals agreed mail the remaining information to EPA within 30 days. Any written responses and documentation that will be provided by Elkem Metals will be filed in EPA's file room under the Elkem Metals Facility at the conclusion of EPA's investigation. The Alloy Steam Station of Elkem Metals's oral responses to the 7 questions raised in EPA's 6/28/04 letter are noted in this report.

I explained our procedures as I indicated we wanted to discuss the facility operations in the morning and would like to physically examine the facility itself, specifically the furnaces, in the afternoon. I further indicated that we wanted to take some photographs of the facility. I indicated that I would be writing an inspection report when I returned to EPA so that if any discussion was to be considered Confidential Business Information (CBI), please let me know so that my report would reflect that. I also indicated that we would send a copy of this report and photographs to Elkem within 60 days.

Jim and I gave a brief summary of our technical background and I asked each individual there for their role on site and how long he/she have worked with Elkem Metals. Roger Wagner indicated that he was an Environmental Engineer and had been with the facility since 1988. David Barnhart is an electrical engineer who has been employed at the Alloy plant since 1986. Dave Renfrew is the Corporate Elkem Health and Safety Officer out of Elkem's Pittsburgh office. Barbara Little is a private attorney and her law firm, Jackson and Kelly, has been hired by Elkem to handle routine environmental issues. She has been working with Elkem since 1985 and had previously worked with Jim Hagedorn of EPA on NSPS issues. Tom Kern, the technical manager of furnaces 6 and 7, has been with Elkem since 1975.

EPA took photographs of the site which are included as attachment A. A photo log of these photographs is included as attachment B. A copy of EPA's Inspection Notification letter of 6/28/04 is included as Attachment C. The existing operational permit (R14-17) of 12/16/02 is included as Attachment L.

The information on the Elkem Metals Facility in the following 61 paragraphs was provided to EPA primarily by Elkem Metals' Senior Environmental and Safety Engineer, Roger Wagner, during the morning and afternoon of July 27, 2004. Legal issues were described by Barbara Little. Information on boiler #4 was provided by David Barnhart. The tour of the furnaces was provided by Tom Kern.

Inspection

1. Just as we began the inspection, the attorney for Elkem, Barbara Little, asked to explain the NSPS status of furnace 15, as that was a integral part of this inspection. Barbara Little explained that originally WVDEP issued a June 1997 permit (permit number R13-2091) regarding the restarting of furnace 15 which stipulated that the furnace subject to the NSPS, Subpart Z, based on a WVDEP analysis. This finding was based on a an analysis regarding the cost to rehabilitate furnace 15. Elkem had indicated that the cost to rehabilitate furnace 15 cost about 13% of the value of the original furnace. The NSPS would be applicable, based on IRS regulations, if the cost exceeded 18% of the cost of the original furnace. WVDEP incorrectly interpreted the IRS regulations to be 8% and thus determined that furnace #15 would be subject to the NSPS. Elkem sent a applicability determination letter to EPA in 1997 which was reviewed by Jim Hagedorn and Dave McGuigan of APD who agreed with Elkem that the cost to rehabilitate furnace #15 was under the IRS threshold, and thus not subject to the NSPS. Based on this finding, WVDEP issued a new permit for furnace #15 (R14-17) of 12/16/2002. Based on appeals by Elkem, the West Virginia Air Quality Board issued a consent order on 5/6/2003 which amended permit R14-17. This consent order is included as attachment D. These revisions are currently what governs operations of furnace #15.

2. Barbara Little further explained that furnace #15 "netted out" of PSD based on the credits established in modifying boiler #4. Low Nox burners were installed in 2003 to reduce nitrogen oxide emissions and low sulfur coal is now being used to reduce sulfur dioxide emissions. The increase in Nox and Sox emissions from furnace 15 are offset by the reductions in these pollutants due to changes in boiler #4. This is why restrictions on the operation of boiler #4 exist in the operational permit of furnace 15 (R14-17).

3. Barbara Little showed EPA with some of the documentation regarding the permit changes and NSPS exemptions and will copy and mail to EPA a complete dossier of documents regarding these issues within 30 days. This package will include all fact sheets (from the Title V application), all administrative orders and appeals, all applicability statements, determinations and analyses and the negotiation statement from WVDEP, Department of Air Quality (DAQ). Barbara Little further suggested that, if needed, Beverly McKeone of DAQ could provide confirmation or other information to EPA as she has been involved with this project in excess of 10 years.

4. Roger Wagner indicated that only furnaces #6 and #14 were operating today, based on the market demand of silicon. Furnaces 3 and 7 have been shutdown since the beginning of July 2004. Furnace 9, which was shutdown in the early 1980's and then reactivated in the late 1990's, has been again shutdown since July of 2003 and there are no present plans to activate it anytime soon. Furnace 15 was currently down but it would be activated this afternoon. The shutdowns are driven by market conditions.

5. Roger Wagner, Dave Barnhart and Tom Kern provided an explanation of Elkem's product line

and process. Quartz and gravel are mixed together in the furnaces mentioned above along with low ash coal, wood chips and charcoal (a reducing agent) to produce 99% pure silicon metal. Furnaces 3, 6, 7, 14, and 15 all produce silicon metal. Now shutdown furnace 9 is capable of producing ferro-silicon which is 25% iron and 75% silicon in the event a demand for this alloy becomes in demand.

6. Tom Kern explained that two major chemical industries, Dow Chemical and GE, purchase silicon from Elkem to make many of their products. Silicon is a major alloy in the aluminum industry. Some electronics manufacturers also utilize silicon.

7. Barbara Little also indicated that while furnace number 9 is shutdown, if operating, it also would not be subject to the NSPS for the same reasons as furnace #15, along with the rationale provided in paragraph 12. Furnace 9 has not been utilized in over 1 year and there are no plans to use it soon, it has not been deactivated but is capable of being activated.

8. Roger Wagner provided EPA with a list of furnaces, their dates of construction, the type of furnace, its expected normal hours of operation, its electric rating and the type and quantity of material produced in 2003 by furnace 15. It is attached as attachment E.

9. Since furnace 9 was not included in the list, Roger Wagner indicated that furnace 9 was initially shut down in the early 1980's before being reactivated in the late 1990's. It is also used to make manganese. It is a 20 MW furnace.

10. As part of the PSD netting process, a restriction in permit R14-17 has been placed on boilers 1, 2 and 3 so they cannot be reactivated.

11. Dave Barnhart indicated that boiler #4 is a pulverized coal Riley Boiler, 581,000 mmbtu/hr, originally installed in 1950.

12. WVDEP originally thought that the reactivated furnace 15 would be subject to the NSPS as physical changes were made so that furnace 15 could now use a 60 hertz (HZ) cycle of electricity in lieu of 25 HZ. Furnace 9 always could use either 25 or 60 HZ so it's reactivation involved even less physical changes than furnace 15.

13. Tom Kern and Roger Wagner explained that the raw materials were mixed in a furnace which contained a submerged electric arc which provided high intensity resistance heating. It heated the raw materials to between 2000-4000 degrees C. This process was called smelting.
At these high temperatures, the raw materials are highly chemically reactive.

14. The electrodes in the furnace produce between 140-200 volts of electricity. The electric current itself runs through the raw materials. The material mix lay between 3 and 6 electrodes which produce between 50,000-70,000 amps at around 200 volts. Transformers regulate the electricity to produce low voltage and high amperage electricity.

15. Raw material arrives on site via rail or truck or sometime barge. It is delivered to individual day bins and mixed together as needed. Elkem has a lab on site in order to confirm the proper mix exists.

16. Normally, Elkem runs a continuous operation and not a batch operation.

17. Tom Kern defined the term "stoking" as moving the raw materials closer to the electrodes in the furnace in order to assist in the smelting process.

18. Roger Wagner provided EPA with a copy of the flow process diagram, which is attached as attachment F.

19. Smelting removes the oxides from the silicon.

20. Tom Kern defined "tapping" as the opening of a furnace to obtain the molten silicon from the bottom of the furnace. This opening is called a taphole. Silicon is "tapped" into a large ladle (a container). Additives can be added to a ladle to tailor a specific product for a customer. Oxygen is normally also added to remove impurities.

21. Tom Kern explained that the term "blowing tapholes" refers to gas escaping from the furnace at the taphole along with the molten raw material. "Poling" refers to a stick or a pole which is pushed into a taphole to clear of hole of any blockage. "Oxygen lancing" means the use of oxygen to open or clear a taphole. "Plugging" means that the tap hole is plugged with mud. "Burning" means to use a electrode to clear a taphole. If a taphole cannot be unplugged, a different ladle will be used.

22. Tom Kern explained that the molten mix of silicon will remain in a ladle and then it will be poured into cast iron molds to form ingots, 2 tons each. After solidifying, the ingots are moved to a crusher, when they can be "rough" crushed into varying sizes from .25" to 12". After crushing, the silicon is loaded into a 100 ton covered rail car or loaded into bulk trucks or placed into cartons or bags for shipment off site.

23. Tom Kern defined "slag" as the unwanted properties of aluminum or iron oxides which float on top of a ladle as a semi chunk. Slag is raked or scraped off of the ladle and stockpiled to re-sale.

24. Dust collected in the ESPs and bag houses is mixed into a slurry and sold or landfilled off site.

25. According to Barbara Little, when WVDEP issues the Title V permit, each furnace will be addressed in the permit and each furnace will have specific emission limits. Elkem expects to be able to meet those proposed limits on the furnaces. Presently there are no emission limits on any furnace except furnace 15 and no compliance testing is required.

26. I requested a copy of the 2002 and 2003 annual emission reports. Roger Wagner promised to get a copy and send it to EPA within 30 days.

27. Elkem's chief competitors are Globe and Simcala.

28. Based on the information provided that morning, EPA believed that the information answered the question posed by question 1 of our 6/28/04 letter.

29. I then asked about information related to question #2 of our 6/28/04 letter. Elkem indicated that there were stack test accomplished in 2004 for furnace 15 and boiler 4. There also was a stack test done years ago on furnace 3. EPA requested copies of all stack tests done on all furnaces and boiler 4.

30. Barbara Little then provided a copy of the Consent Order (previously discussed) which specified changes in permit R14-17. Roger Wagner gave me a plain language summary of the changes. This is enclosed as attachment G.

31. Elkem showed EPA a list of summary of the results of stack testing on furnace 15 in 2004. EPA did not see any testing for Pb, PM/PM10 nor CO. Elkem was unsure of the results of these pollutants but promised to make a copy of the entire stack for EPA to examine. Elkem did indicate that lead was a calculated figure, a percentage of PM, based on 12/15/98 testing. While EPA was shown a summary table of the stack testing, Elkem did not give this summary to EPA. It should be provided later along with a copy of all of the stack tests test reports and results.

32. According to Roger Wagner and David Barnhart, Elkem has no COM nor CEMs on any furnaces but does have a certified COM and CEMs for SO2 and Nox on boiler #4. The RATA test on boiler #4 was just performed.

33. The information discussed in paragraphs 28-32 either satisfied or will satisfy (when sent to EPA by Elkem) the request for information in questions 2 and 3 of EPA's 6/28/04 letter.

34. Question 4 of EPA's 6/28/04 letter was multi-faceted and refer to conditions in permit R14-17. Elkem provided responses to this question as follows:

- PM emission will be provided from 1998 testing results; No PM testing was done in 2004.
- Six months of records of opacity from all furnaces will be provided in a manner which will show compliance with condition 30 of the permit R14-17. A statement demonstrating compliance will also be provided by Elkem.
- Records of measured data from furnace 15 including furnace load and fan motor power consumption across each section of the baghouse was provided and is included as attachments H and I.
- Regarding Poling operations, Elkem will need to provide information to show it is in compliance with the second to last bullet of permit condition 19 in any time period since

December 2002. This response must also address permit conditions 3 and 4.

- Regarding permit condition 19, Elkem has the voltage data of the boiler ESP but it is recorded in its data system and there is no associated printer to print it out.
- Elkem will have to provide daily production records for last month for furnace 15
- Information on fan motor power consumption of each fan was provided as attachment I
- Elkem will need to provide the fan motor power consumption of each motor
- Information on the pressure drop across the baghouse was provided in attachment H.
- Information needed to show compliance with permit conditions 5 and 16 will need to be provided by Elkem.
- Roger Sisk, an Electrical Instrument Specialist at Elkem, indicated that the transducers of the continuous monitoring system are calibrated every 2 years although the permit calls for an annual calibration in permit condition 21.
- Fan performance curves were provided and are included as Attachment J.

35. Regarding question 5 of our 6/28/04 letter, Elkem already agreed to provide information to satisfy permit conditions 5, 16 and 19. Stack testing results, when provided, from 1998 should show compliance with permit condition 1. A description of dust handling was orally provided as noted in paragraph 24 of this report. Dust from the baghouses is collected in silos, mixed into a slurry and hauled off site by Sodder Trucking and taken to a landfill for disposal or the slurry is taken off site by Elkem Materials, a Elkem holding company, for usage or sale.

36. Regarding question 6, Elkem will have to provide EPA with a copy of any notifications to WVDEP of installation of continuous monitoring equipment as required in permit condition 18 and 20.

37. Question 7 of our 6/28/04 letter addressed the removal efficiency of PM by the ESP. Elkem asserted that the 99.3% efficiency figure specified in permit condition 23 of permit R-14-17 is incorrect. Elkem will provide the correct figure, the source of the correct figure and how that limit is being met. EPA was told that low Nox burners were installed and we requested to observe them in the physical inspection that afternoon. Elkem provided information for 2003 and 2004 on the coal consumption data for boiler 4 and information regarding the sulfur in the coal. It is included as attachment K. A copy of the 2004 stack test for boiler 4 will be provided to insure compliance with the boiler emission limits specified in the permit.

38. Elkem also has a permit for a solid waste landfill, where boiler bottom ash and fly ash are disposed.

39. Elkem submitted a Title V permit application in April 1996. It has not yet been issued by WVDEP.

40. Emissions from the boiler, pass thru an ESP. Elkem has an Solid Waste Permit to dispose of the ash.

41. Roger Wagner indicated that he is a Certified Method 9 reader.

At this point, we broke for lunch. I indicated that I would review my notes and would summarize any items I was looking for from Elkem Metals.

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42. After I reviewed my notes at lunch, and late in the day, I summarized the information which was still desired by EPA. This list is shown in paragraph 60.

43. We met with Roger Sisk regarding equipment calibration, which is discussed in paragraph 34. At this point we began the physical inspection. All of the information listed in paragraphs 44 through 61 were provided to me by Roger Wagner, Tom Kern or Dave Barnhart. References to photographs are those listed in the photo log, attachment, B.

44. We initially examined furnaces 14 and 15 as shown in photos 1 and 2. Raw Material feeding the furnace is fed into the furnace from several overhead day bins on top of the furnace. The ladle is positioned under the furnace and is positioned on rails so that it can be rolled out from under the furnace and can be positioned by an overhead crane to pour the molten mix into molds called "Chills". A chill is shown in photo 6. The molten material in the chill is air cooled to form an ingot. The ingots are staged in an area as shown in photo 3.

45. Ingots are moved by crane to a crusher where they can be rough crushed to various sizes for shipping off site.

46. Earlier in the day, furnace 15 was not operational but now it was, as was furnace 14. We went into the control room of those furnaces to more closely examine their operation. The burning of raw material at the top of furnace #15 is shown in photo 7. The burning of raw material at the top of furnace #14 is shown in photo #8. The control room screens are shown in photo 9. In the background of this photo, the burning zone of furnace 15 is shown. I noted that the following readings were shown on the control room screen of furnace 15:

- Megawatt Hours
- Fan Amps
- Bag House Temperature
- Bag House Pressure

47. Jim Hagedorn requested a print out of the screens showing the operating conditions of furnaces 14 and 15 during our visit. Elkem promised to provide them in the mail.

48. Each furnace (#14 and #15) has its own separate baghouse.

49. In the control room, we could read the amperage and power draw on each of the 3 sets of electrodes on these furnaces. We were told that each set of electrodes contains 4 electrodes.

50. The furnace operator told me that each furnace (#14 and #15) was "tapped" every 2 hours and/or every 45 MWs.

51. We walked outside of the furnace building and examined from below the baghouses for furnaces #14 and #15, as shown in photo 10. The baghouses were constructed in the 1970's. Both of these baghouses are identical, each having 12 compartments with 144 bags per compartment. We then visited the control room for these baghouses as shown in photo 11. Readings in the control room for baghouse #15 were as follows:

- Baghouse inlet temperature: 217 F
- Baghouse pressure: 5.4 inches of water
- Main fan amperage: 452
- Fan amps: 111
- MW: 16.2

There also was a magnehelic backup.

52. Readings for baghouse #14 were as follows:

- Temperature: 270 F
- 8.1 inches of water
- Fan Amps 450

53. We passed by the baghouse for furnace #3 which is shown in photo 12.

54. We saw the wooden "poles" used to conduct poling, the procedure used to open tap holes. The poles are shown in photo 13.

55. We then walked through the shutdown furnace #7 as shown in photo 15. Tom Kern provided us with extensive information here. At the time, furnace #6 was operating in an adjacent area and Elkem was positioning electrodes to be placed in furnace #7. A view of the electrodes being positioned in the electrode holders in furnace 7 is shown in photos 16 and 17. While observing the electrode positioning in furnace 7, we observed the operation of furnace 6 as shown in photo 18. In this photo, workers are raking the existing raw material with a backhoe to insure a complete and full burning of the raw material. This process is also called stoking.

56. We examined the crushing area-area C3P and saw the discharge shoot of the crusher. (Note: the photo of this area did not develop properly.)

57. We then drove over to the boiler house. On the way we observed the rail cars full of wood chips (used in the smelting process) as shown in photo 20. We also observed the serpentine cooler where the baghouse dust is cooled. At the power plant we were met by David Barnhart. Currently, Elkem is not operating any boilers and have not been for several weeks. Their power is either purchased or obtained from hydroelectric power or both. Dave Barnhart showed us the low Nox burners as required by permit R14-17 and as shown in photo 21. They were installed in

November of 2003. There were 6 low Nox burners installed.

58. We walked outside of the power house and observed the ESP (#4) serving boiler #4. There is only 1 boiler which is operational and only 1 ESP. The ESP is shown in photo 22. Boiler #4 drives turbine #3, which is the only operational turbine on site.

59. We headed back to the main conference room and took a photo of the building housing furnaces 14 and 15, as shown in photo 23 (center of photo). We also took a photograph of the stack of the boiler house, toward the left side of photo 24. #6 and #7 furnace building is on the right side of this photo and more of that building is shown in photo 25.

60. Upon completion of the physical inspection, we had a short debriefing where I summarized the information which I required.

61. To summarize, the information which Elkem would be sending to EPA included the following:

- The negotiation statement from WVDEP regarding any permit changes or releases from NSPS requirements
- Copies of any NSPS exemption documents
- Title V permit application and draft Title V fact sheets
- Annual Emission reports for 2002 and 2003
- All stack tests conducted including furnace 3 (done years ago), 2004 stack tests of furnace 15 and boiler 4 and any 1998 stack testing
- Six months of opacity data as required by permit condition 30
- Daily production records for last month for furnace 15
- A statement or information to show compliance with the standard operating procedures called for in permit condition 5.
- A statement or information to show compliance with permit condition 16.
- A statement or information to show compliance with permit conditions 3, 4 and the second to last bullet in condition 19. Information should be from a time frame since December of 2002.
- A summary of the taphole efficiency study
- Notification sent to WVDEP from Elkem regarding the installation of continuous monitoring equipment
- Data related to the control efficiency required for PM and how it is achieved
- A transducer calibration report
- A COM/CEMs calibration report from boiler #4
- Printout from the furnace control room as witnessed by EPA on 7/27/04
- An updated Elkem Organization Chart

Elkem promised to provide this information to EPA within 30 days. EPA indicated that we would be sending Elkem a copy of our inspection report and photographs within 60 days.

This ended the physical inspection. I further indicated that if some issue needed to be discussed further, then I would be in touch. I thanked Elkem Metals Facility for their hospitality and we departed the site at about 3:45 pm.

Attachments

A. Photographs of inspection of 7/27/04
B. Photo Log of inspection of 7/27/04
C. EPA Request for Information letter of 6/28/04
D. Consent Order of 5/6/03
E. Data on Furnaces
F. Process Flow Diagram
G. Plain Language summary of revised permit conditions
H. Compartmental pressure drop across the baghouse
I. Furnace Load, Baghouse pressure, Fan Motor and Power Consumption monitoring data
J. Fan Curves
K. Fuel Data from boiler #4
L. Permit No. R14-17 of 12/16/2002

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

FILE COPY

DATE : September 12, 2002

SUBJECT: Inspection Report of the Alloy Steam Station of Elkem Metals Facility in Alloy, WV

FROM: Jerome M. Curtin, Environmental Engineer, Lead Engineer for the Alloy Steam Station of Elkem Metals Facility, Air Enforcement Branch

VIA (REVIEWED BY): James Hagedorn, Environmental Scientist, Air Enforcement Branch

TO: Chris Pilla, Chief, Air Enforcement Branch
and
File Room

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Date of Inspection: 8/21/2002. EPA arrived on site at about 8:55 am.

Overview

The Alloy Steam Station of Elkem Metals Associates operates an electric generation plant located in the town of Alloy, WV , which is approximately 30 miles southeast of the city of Charleston, WV. The primary purpose of this plant is to generate electricity for use by the Elkem Metals Facility. (EPA refers to these types of facilities as non- regulated utilities). There is no steam generation for any usage other than to drive a turbine generator to generate electricity. The company also can purchase electricity from the nearby large utility company, American Electric Power (AEP) And, on occasion can transfer any surplus electricity to AEP in return for a billing credit. Elkem Metals-Alloy cannot purchase and sell electricity to AEP at the same time as there is only one electric line to AEP. This electrical generating plant contains four built up boilers which could produce steam but currently only 1 boiler (#4) is operational. The facility also has 4 turbine generators but again only one (#3) is operational.

Elkem Metals of Alloy, WV has a business name of Elkem Metals, Alloy, L.P. (Limited Partnership) and is owned by Elkem Metals, which in turn is owned by Elkem ASA of Norway.

Elkem Metals has a full electric load of about 161 Megawatts. (MW). They obtain this electric power from 4 sources: The Alloy Steam Station produces between 15 and 45 MW. About 5 miles south of the Alloy Plant, Elkem owns the Glen Ferris Hydro Electric Plant which is capable of generating up to 5 MW depending on weather conditions on the river. About 2 miles south of the Glen Ferris Plant is another Elkem hydroelectric plant, the Hawks Nest Plant which normally generates up to 102 MW, again depending on weather conditions. These two hydro plants together normally generated between 7 to 107 MW at 69 Kilovolts with the Alloy Plant providing between 15 and 45 MW at.13.2 Kilovolts. In the best case scenario, Elkem-Alloy can generate 152 MW while needing 161 MW, with the remaining 9 MW purchased from the local power plant, AEP. When Elkem's electrical generation is less and/or more electricity is needed, up to 100 kilowatt of 138 kilovolt electricity can be purchased from American Electric Power (AEP) Company. AEP can interrupt the electricity it provides Elkem, so under that scenario, Elkem must adjust their operations to fit the electricity which they can generate themselves. In a rare instance, when furnaces are down, Elkem could supply excess or "spill energy"electricity from their hydro plants to AEP in return for an "avoided cost" credit. Since there is only 1 electrical line between Elkem-Alloy and AEP, electricity can either be bought or sold but not both simultaneously.

Elkem Metal Plant in Alloy, WV produces silicon and ferro-silicon for use by the chemical and aluminum industry. The silicon is produced through the melting of silica in large furnaces on site. Elkem Metals has 6 such furnaces. Four of these furnaces operate with

electricity which has a frequency of 25 Hertz and two other furnaces and the baghouses on site utilize electricity with 60 hertz. 60 hertz electricity is the normal frequency of electricity generated commercial in the United States. However, 25 hertz electricity is more efficient and since this plant is an electrical intensive plant, the more efficient electrical generation is highly desirable. Furnaces 3, 6, 7 and 14 utilize 25 Hz electricity and consume 32, 22, 22 and 22 MW respectively for a total power consumption of 98 MW of 25 hertz electricity. There also are auxiliaries (cranes) which utilize 4 additional MWs of 25 Hz electricity for a plant total of 102 MWS of 25 Hz electricity. Furnaces 9 and 15 utilize 60 Hz and have power consumptions of 20 and 22 MW respectively. The other plant auxiliaries (ESPs) also utilize 17 MWS of 60 Hz power for a total load of 59 MWS of 60 Hz power. In order to mix and match the necessary frequency of electric power, Elkem-Alloy has a 48 MW frequency converter which can convert 60 Hz electricity to 25 Hz and vice versa.

The plant began operations in the 1930's as a Union Carbide Plant. Elkem Metals purchased the plant from Union Carbide in 1981. The electric plant began operations concurrent with the rest of the facility. The Alloy Steam Station of Elkem Metals has an expired contract to buy and/or sell electricity with American ElectricPower Company (AEP) and is currently operating with an interim contract. It is anticipated that a new contract will be agreed upon soon with a provision for AEP buying "spill energy" from both the hydros and the Alloy Plant itself.

The 120 acre site lot on which the Elkem Metals-Alloy plant sits is owned by Elkem and is within the boundaries of the unincorporated town of Alloy, Fayette County, WV. There is also a 30 acre site, non contiguous to the plant which includes a solid waste landfill used only to dispose of solid waste from the Elkem-Alloy plant. This landfill is east of the plant, on the other side of Route 60.

The Alloy Steam Station of Elkem Metals Facility normally uses coal as the fuel for its pulverized coal boiler. The company uses natural gas to lite-off the boiler. The plant has its own natural gas wells. A Coal Broker, Vandalia of an undisclosed WV location, leases a portion of the Alloy site and stages coal there.

The Alloy Steam Station of Elkem Metals Facility is run by 43 employees who work 7 days a week, 24 hours a day. The Elkem manufacturing plant itself employs 43 employees, also working 24/7 .

During this inspection, Mr. David Barnhart, the Manager of Power Facilities at Alloy, provided EPA with most of the overview and technical information about the Alloy Facility as well as some history of the operations.

Narrative

EPA personnel did a drive by examination of the facility the day before the inspection, on 8/20/02, at around noon. We did observe a significant amount of opacity to be coming from the

vents of the furnaces. It is believed that these emissions were coming from the furnace at the far north end of the facility (believed to be building C3F). We also noted that the one operational boiler stack also had significant opacity. EPA personnel were concerned that in both cases that the opacity well exceeded 10%. As a follow up, EPA did a second drive by on 8/21/02 beginning around 8:15 am. We again observed significant opacity problems but this time it was with furnace #15 in building C8F as well as the operational boiler stack. Photographs 1 through 3 show the areas of concern. These concerns were expressed to WV DEP and to the company at the end of the inspection. See Paragraph 57.

Jerry Curtin (the lead investigator) and Jim Hagedorn arrived on-site at 8:55 am. Also invited were the WVDEP air quality personnel who operates out of the Charleston Main WV DEP office-James Robertson and Robert Keatley. Jim and I identified ourselves to the Elkem-Alloy personnel, and presented our EPA credentials/identification. I told The Alloy Steam Station of Elkem Metals personnel that EPA was on-site to perform a comprehensive investigation of The Alloy Steam Station of Elkem Metals Facility for compliance with the Clean Air Act, including an evaluation of whether the facility was subject to the acid rain regulations promulgated in 40 C.F.R. 72. I explained that The Alloy Steam Station of Elkem Metals Facility was one of our "non-regulated utilities," that we were looking at their compliance with acid rain regulations and all other air regulations (NSPS, PSD, NSR, etc.) and that this inspection was part of an overall EPA initiative. I noted that EPA intended to investigate all 77 of our non-regulated utilities and that many of them currently were under some form of investigation. I stated that this was about our 15th visit to a non-regulated utility to do a physical inspection and that we varied our inspection schedule to include facilities in Pennsylvania, Maryland, Virginia, Delaware and West Virginia. I noted that besides our physical inspections, a number of facilities had also received a screening letter from us.

I noted that prior to our inspection, EPA sent The Alloy Steam Station of Elkem Metals Associates a July 17, 2002 request for information to have information available to EPA during our visit. EPA reviewed the information requested with personnel from the Alloy Steam Station of Elkem Metals and all of information was discussed with EPA during the inspection. Elkem Metals reviewed with EPA personnel all of the information requested but did not have copies of everything for EPA to take with us. The Alloy Steam Station of Elkem Metals is now in the process of making these copies and investigating some question posed by EPA. EPA will formally be requesting this additional information via a Clean Air Act Section 114 letter within a few weeks. Any written responses and documentation that will be provided by The Alloy Steam Station of Elkem Metals will be filed in EPA's file room under The Alloy Steam Station of Elkem Metals Facility at the conclusion of EPA's investigation. The Alloy Steam Station of Elkem Metals's oral responses to the 14 questions raised in EPA's 7/4/02 letter are noted in this report.

I explained some ground rules as I indicated we wanted to discuss the facility operations in the morning and would like to physically examine the electric and steam generation facility itself in the afternoon. I further indicated that we wanted to take some photographs of the

facility. I indicated that I would be writing an inspection report when I returned to EPA so that if any discussion was to be considered Confidential Business Information (CBI), please let me know so that my report would reflect that. I also indicated that EPA would be writing a compliance analysis of the Alloy Steam Station of Elkem Metals but that this analysis was not releasable to anyone outside of EPA.

Jim and I gave a brief summary of our technical background and I asked each individual there for their role on site and how long he has worked with the Alloy Steam Station of Elkem Metals Facility. Talmadge Hager explained that he was the Director of Environmental Affairs and had been with the facility since 1984. Roger Wagner indicated that he was an Environmental Engineer and had been with the facility since 1988. Chet Brandon stated that he was the facility's safety engineer and that he has been with the facility for 10 years and this was his second employment stint at Alloy. Chet also gave the EPA personnel a safety briefing. David Barnhart is a degree electrical engineer who has been employed with Elkem since 1968 and has been at the Alloy plant since 1986. He formerly was at the Elkem facility in Marietta, Ohio. He is in charge of the steam production and electrical generation and he is Elkem's interface with the Federal Energy Regulatory Commission (FERC). Dave Renfrew is the Corporate Elkem Health and Safety Officer and has been with Elkem since 1966. He formerly worked for Ohio EPA. Kathy Beckett is a private attorney and her law firm, Jackson and Kelly, has been hired by Elkem to handle routine environmental issues. (I met Jim Holly, the Plant Engineer, going into our opening meeting but Mr. Holly did not attend it.) James Robertson and Robert Keatley are WV DEP employees whose duties include inspection of the Elkem Alloy plant. James Robertson has been with WV DEP for about 6.5 years and Robert Keatley for about 8 years.

EPA did take photographs of the site which are included as attachment A. A photo log of these photographs is included as attachment B. A copy of EPA's Inspection Notification letter of 7/4/02 is included as Attachment C.

The information on The Alloy Steam Station of Elkem Metals Facility in the following 60 paragraphs was provided to EPA primarily by Elkem Metals-Alloy, Manager of Power Facilities, David Barnhart, during the morning and afternoon of August 21, 2002, except as noted:

1. The Elkem-Alloy Steam Plant contains 4 boilers and 4 simple cycle turbines. Only 1 boiler and 1 turbine has been operational since 1992. The other boilers and turbines are not operational because it is economically undesirable to do so. Boiler 4 and Turbine 3 operate while the others are considered "idled".

2. Number 4 boiler is a Riley Boiler, with Babcock and Wilcox internals and ABB controls. It was built under Union Carbide ownership, it is a built up boiler and was constructed about 1950. It has a heat producing capacity of 580.8 mbtu/hr at 900 psi and 900 degrees F. There are 3 pulverizers feeding this boiler. Elkem does its own maintenance of the boiler.

3. Boiler #4 is normally shut down for maintenance and repairs in the winter for 6 to 8 weeks, when the hydro plants are fully operational, although this past year it was only shutdown 18 days. Usage of this boiler in summer is critical as the hydro's produce little electricity during the summer.

4. The burners of the #4 boiler are wall fired and it is a dry bottom boiler. There are no low Nox burners and no capacity changes have occurred since 1950.

5. The coal supplier is Vandalia of an undisclosed WV location. All coal for Elkem is trucked in from Baltimore. Vandalia also ships coal on barge down the Kanawha River and stages it on site. It leases an estimated 25 acres.

6. The coal is 1% sulfur or less as required by a consent decree with WV DEP. Vandalia provides a certification for this. No testing is done by Elkem. All coal is already blended when it arrives on site. There are no set nitrogen requirements. When the boiler is at high load, 9 burners are running while only 6 run at low load. I asked for a copy of the coal specification.

7. The coal ranges in value from 11,900 btu/lb to 12,000 btu/lb. The ash content required is 15%-16%.

8. Elkem specified that it took about 11,600 btu's to generate 1 kWh.

9. Elkem stores about 4000 tons of coal on site

10. I requested a copy of a site map.

11. The boiler plant utilizes water from the Kanawha River for cooling water and boiler feed water. The boiler cooling water is once through, closed pipe heat exchange. Elkem has an NPDES permit to discharge the water into the Kanawha River. It must have a temperature of 95 degrees F or less. The boiler feedwater is treated in an internal treatment facility before use.

12. Elkem Alloy also has a permit for a solid waste landfill, discussed earlier, when boiler bottom ash and fly ash are disposed.

13. Elkem submitted a Title V permit application in April 1996. It has not yet been approved by WV DEP. Any equipment installed before 1974 has been "grandfathered" from the emission requirements of the State. As a result, the boiler plant does not have nor need an operating permit nor does it have permit restrictions nor emission limits. However, furnace number 15 had been shutdown and was reactivated in 1998. Therefore it has a permit with emission limits. Elkem has signed a Consent Order with WV DEP regarding this furnace. EPA was not on site to examine areas of the plant other than the steam/electric generating plant but emissions from furnace 15 was one of the areas where EPA observed opacity problems as noted earlier.

14. WV DEP did indicate that the WV State Implementation Plan did put restrictions on air emissions regardless of "grandfathering". Rule #2 calls for opacity of less than 10% and Rule #10 calls for sulfur dioxide emissions to be based on a weight emission standard and calculated to 100% SO2, based on the % of sulfur in coal. The % of sulfur in coal can be verified by an independent lab. Specifically, Elkem was cited having a SO2 limit of 930.88 lb/hr. WV DEP also spoke of 2 interpretative rules from the year 2000 dealing with monitoring. Specifically each boiler is to have its own COM but CEMS are not required. However, the existing COM is not certified. Rule #2 also called for stack tests to be performed for PM. One was performed in August 2000 while another was performed in October 2001. The frequency of needed stack tests is a function of the emission limits. A stack test for PM is required every 2 years. Stack Tests for SO2 and Nox have not been performed and their performance is at the discretion of WV DEP.

15. The operating turbine at the Elkem Alloy Steam Plant is a GE turbine while the turbines at the hydro plants are Westinghouse. Hawks Nest has 4 turbines installed in 1930 while Glen Ferris has 8 turbines installed in 1917. The 4 turbines at Hawks Nest are 25.5 MW each while at Glen Ferris there are six .33 MW turbines and two 1.5 MW turbines. There are no diesel fired generators at any station except for Hawks Nest which does have a diesel driven generator. Glen Ferris could get emergency power from Hawks Nest.

16. Jim Hagedorn requested a copy of a boiler schematic drawing. (A summary of all of the information requested by EPA, including information requested in paragraphs 23, 25, 27, 35, 37 and 41 was not provided to EPA by Elkem during the inspection but was requested in a Section 114 letter and should be provided to us shortly. A full list of needed information is listed in Paragraph 60.)

17. It was indicated that there are no present plans to install Nox nor Sox CEMS.

18. Elkem has 4 plants in the US.

19. Elkem then reviewed their electric generation process. Coal is delivered and stored in a coal building via an underground conveyor. It is then fed into a primary and secondary crusher and reduced from about 8" to a thumbnail size. Elkem was unsure of the type and capacity of the crushers. This type of coal crushing is coal prep but according to Elkem is not subject to Subpart Y of NSPS.[1] From the crushers, the coal is stored in a coal bunker, again the capacity of it is unknown. From the coal bunker, the coal is pulverized and blown into the boiler.

20. Emissions from the boiler, pass thru an ESP. This flyash is later mixed with water and trucked to the Elkem solid waste landfill. Bottom ash from the boiler is mixed with water and

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[1]Upon receipt of more information from Elkem, EPA will examine the applicability of Subpart Y to the Elkem facility in Alloy, WV

sent to a series of ash settling ponds where the ash is recovered and sent to the solid waste landfill. Elkem has an Solid Waste Permit to dispose of the ash. Elkem indicated that no "beneficial use" requirement exists for the ash.

21. Elkem acknowledged that some fugitive emissions exist from the coal handling process.

22. Elkem treats river water for use as boiler feedwater by a reverse osmosis process to remove solids and then runs the water through polishers.

23. Roger Wagner indicated that he is a Certified Method 9 reader and that he regularly takes 3 one hour readings of the boiler stack emissions. EPA requested copies of the log of these readings.

24. EPA believed at this point, enough information had been gathered to answer question 1 and 2 of our July 17, 2002 letter.

25. Regarding questions 3 and 4 of or 7/17/02 letter dealing with electric production and fuel usage, Elkem Alloy provided us this information via an overhead slide. EPA requested a hard copy of the slide.

26. EPA requested information on the hours of operation and KWH on the hydro plants.

27. EPA also requested information on the amount of natural gas used.

28. Elkem noted that the electric production quantities increased in 1998 as furnace #15 was re-activated after a 15 year shutdown.

29. Elkem also noted that they inject SO# into the air waste stream from boiler #4 prior to passing thru the ESP to increase PM removal efficiency. Elkem purchases sulfur dioxide from Breentag Industries of St. Albans, WV and converts it to SO3 by use of a vanadium pentoxide catalyst. The SO3 sticks to the PM particles and increases their capture. Elkem indicated that it believes that the SO3 particles are indeed sticking to the PM because of the low pH of the ash. Elkem does not normally sample its ash but when sampled, the pH of the ash is between 6 and 9.

30. Elkem is planning to install low Nox burners in boiler #4 as part of its consent order with WV DEP. Apparently when Elkem re-activated furnace #15 in1998, the furnace became subject to the PSD. As part of a Consent Order with WV DEP, ELKEM agreed to get enough Nox and SOx offsets from boiler #4 to compensate for the #15 furnace. These include low Nox burners plus using low sulfur (1% or less) coal in boiler #4.

31. In response to EPA question 5 of our 7/17/02 letter, Elkem has an Annual Emission Summary for the Smelter and the Steam Plant and can provide it. Elkem does not provide quarterly emission reports to WV DEP, only start up and shut down reports. They also do not

regularly report opacity as it is not recorded other than the Method 9 test logs. EPA will be requesting all of the information which Elkem does have.

32. Regarding air permits, question 6 of our 7/17/02 letter, Elkem does not have any air permits except for furnace #15. They do have a copy of their Title V application. EPA will request those. WV DEP indicated that when Elkem Alloy gets its Title V permit, the SIP rules previously discussed will be incorporated into it.

33. EPA requested a copy of any feasibility study conducted as noted in question 7 of our 7/17/02 letter. Elkem indicated that a feasibility study/studies existed which examined the following topics:

- Restarting furnaces #9 and #15. #9 furnaces
- Installing the frequency converter
- Reactivating turbines 1, 2 and 4
- Installing a package boiler

Kathy Beckett, the attorney representing Elkem, asked if a Executive Summary could be provided instead of the study itself to protect CBI. Jerry Curtin of EPA agreed but indicated that it was likely that after EPA reviewed the Executive Summary, we would again ask for the entire study.

34. In discussion of question 8 of our 7/17/02 letter, Elkem Alloy showed EPA a list of its large capital projects. EPA requested copies of the Capital Authorization Requests (CARs) for the following projects:

- #1308 from 1993 and #1477 from 1998: TG #3 overhaul
- #1469 from 1998: Steam Boiler
- #1477 from 1999: #3 TB overhaul
- #1608 from 2001: Replace Condenser Tubes

35. In discussion of question 9 of our 7/17/02 letter, Elkem Alloy indicated that it would provided nameplate information for the Hydro TG's.

36. Elkem Alloy had already provided EPA with info on its coal crushing operation (question 10 of 7/17/02 letter) and they do not sell steam or hot water (question 11 of our 7/17/02 letter).

37. Kathy Beckett, the attorney for Elkem Metals, indicated that they do not believe that they are subject to the Acid Rain Regulations but they were unsure as to how they met the exemption (question 12 of our 7/17/02 letter. EPA requested that they respond in writing to our upcoming question about why they are exempt from the Acid Rain regulations and provide EPA with any FERC documents or certifications which demonstrate their exemption.

38. EPA also requested a copy of Elkem's past and present contract with AEP.

39. In discussion of question 13 of our 7/17/02 letter, Elkem Alloy indicated that Elkem owns and operates the entire plant, with the exception of the small areas leased to Vandalia.

40. In discussion of question 14 of our 7/17/02 letter, Elkem Alloy has not yet received its Title V permit so they could not have certified compliance with it yet.

41. WV DEP indicated that furnace 15 had to be in compliance with Rule 13 (Minor NSR permit rule) of the SIP regarding emissions. Equipment down for more than 5 years needs a PSD analysis. EPA requested that Elkem provide us with a copy of the Consent Order it had agreed to with WV DEP.

At this point, we broke for lunch. I indicated that I would review my notes and would summarize any items I was looking for The Alloy Steam Station of Elkem Metals Facility to provide me in the future.

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42. After I reviewed my notes at lunch, and late in the day, I summarized the information which was still desired by EPA. This list is shown in paragraph 60. I indicated that we would be sending The Alloy Steam Station of Elkem Metals a Section 114 letter to formally request the information which was orally requested during our inspection.

43. At this point we began the physical inspection. All of the information listed in paragraphs 44 through 57 were provided to me by David Barnhart. References to photographs are those listed in the photo log, attachment, B.

44. We began the physical inspection by passing by the #15 melting furnace as shown in photo #4 as discussed earlier in this report. The background of this photo shows the electrical substation.

45. We proceeded to go to the coal yard area of the plant but we first passed by the area where the sulfur dioxide canisters were stored as shown in photo #5. The SO2 is treated with a vanadium pentaoxide catalyst to convert it to SO3. The primary crusher is located in the coal yard area and is a Jeffries Primary Crusher as shown in photo #6. An area where coal is staged is also shown in photo #6. The Primary Crusher is located below floor level in the primary crusher building. The crusher itself is shown in photo #8.

46. The coal is conveyed from the primary crusher to a secondary crusher as shown in photo #7. From the secondary crusher, the coal is conveyed into the boiler house.

47. The exhaust gases from the furnaces on site are cooled in an air cooler as shown in photo #9. Shown to the right of the air cooler in photo #9 is the Electric substation. Alloy owns the electricity and the electric line from its plant until it is conveyed to the AEP substation at the

Kanawha River Power Station. The electric line between the utility and Elkem -Alloy is 138 KV. There is only 1 electric line to AEP so Elkem Alloy can either import or export electricity but cannot do both at the same time. The electric line from the hydro electric plants to Elkem Alloy is 69 KV.

48. Photos 10 and 11 show GE steam turbine #3-the only operational turbine. It's nameplate indicates that it is 40,000 KW with a maximum output of 44,000 KW at 25 Hz. It is hydrogen cooled. There was a small window on the side of the turbine where one could observe the cooling oil being circulated. EPA was next shown the boiler water treatment equipment as shown in photo #12. This involved sending the boiler makeup water through a sand filter and a reverse osmosis/de-ionizing treatment plant for polishing. The plant has had no pH problems with the boiler feedwater.

49. EPA was next shown the pulverizers of the coal prior to feed into the boiler as shown in photo #13. The active boiler has 3 Babcock and Wilcox pulverizers.

50. We next observed a side chamber on the bottom of the boiler where the bottom ash resided. Dave Barnhart told me that Elkem flushes out the ash from the boiler and into a settling pond as shown in photo #14. About 15% of the ash generated on site is bottom ash with the other 85% being flyash. There is one primary settling pond feeding 2 smaller ponds and then feeding a third settling pond. The ash/dust is cleaned out of this 3rd settling pond and staged and dewatered and finally sent to the solid waste landfill discussed earlier. Talmadge Hager indicated that the water is sampled before being discharged as required by its NPDES permit. The dust is also sampled (TCLEP) before being landfilled.

51. A small discussion occurred regarding the hydro plants. The Glen Ferris plant is unmanned while the Hawks Nest Plant has 1 person on site at all times with 5 other personnel there periodically throughout the day.

52. We then visited the electrical distribution control center as shown in photo #15. At that time (1:55 pm), the facility was receiving 9 MW from the hydro plants and 55 MW from #3 TG.

53. We then visited the boiler control room as shown in photo #16. This control room did have a COM gauge, which apparently is uncertified and no data is recorded. While we were there I observed the COM reading to be between 9.6% and 10.3% as shown on the gauge. I observed it for 3-6 minutes. The control room also had an uncalibrated CO meter which read 938 ppm. Dave Barnhart said the meter was incorrect and the actual CO reading was less than 100 ppm. The control room also had two excess oxygen meters on the boilers reading 3.2% and 3.4%. They are occasionally calibrated.

54. We were taken out to the boiler area and saw where there was a observation port into the boiler as shown in photo 17.

55. When we left the boiler plant we passed under the ESP as shown in photo #18. There is also a small baghouse for the flyash.

56. Dave Barnhart indicated that the plant is a Union environment. He also explained that the chemical reaction that takes place at the plant involves mixing silica oxides with carbon to form Silicon, carbon monoxide and silica oxides.

57. Upon completion of the physical inspection, we had a short debriefing where I summarized the information which I required. I also made a recommendation that Elkem Alloy should consider certifying its COM for the boiler stack. I noted some opacity issues with the furnaces and since this inspection was confined only to the boiler plant, I referred the issue to WV DEP with EPA concerns that opacity from the furnaces seemed excessive. (I has spoken to WV DEP about this during lunch.) Regarding the boiler stack, I again expressed concern that the opacity seemed high, that the uncertified COM indicated a level slightly in excess of 10% when I observed it and that a minimum number of stack tests and/or Method 9 tests existed to demonstrate regular compliance. I also noted that the uncertified COM readings are not recorded. To remove any question about the opacity compliance, I recommended that Elkem consider certifying the COM.

58. Elkem indicated that the only piece of equipment on site subject to the NSPS were #9 and #15 furnaces, subject to Subpart Z.

59. I requested an Elkem organizational chart

60. To summarize, the information which I would be requesting from Elkem included the following:

- The source and supplier of natural gas besides the wells on site, if any
- The location of Vandalia
- A copy of the coal spec
- A specification of whether the 11,600 btu/kWh figure was net or gross
- A map of the site
- Confirmation that the cooling water discharge was less than 95 degrees F
- A hard copy of any of the slides shown to EPA on 8/21
- The name and location of any independent lab Elkem uses
- Any CAR on proposed CEMS
- Capacity of the coal bunker
- Logs of Method 9 readings for the last year
- Hours of operation and nameplate data on the hydro plants
- Natural Gas usage
- Specific data in response to EPA questions 3 and 4 of our 8/17/02 letter
- Annual Emission Inventory and Start Up/Shut down report-question 5
- Feasibility Studies (question 7)

- CARs #1308,1477,1469, and 1608
- Nameplate data for all boilers/TGs including Hydro's
- Justification for Acid Rain Exemption and Documentation (question 12)
- Contract with AEP
- Copy of Consent Order with WV DEP
- Organizational Chart
- Print Out from Boiler Control Room visit (during the afternoon inspection)
- Capacity of the pulverizers

This ended the physical inspection. To close, I indicated that EPA would be sending a Section 114 letter asking for the information we discussed during the inspection as noted in paragraph 60 plus any other information that I thought pertinent. I further indicated that if some issue needed to be discussed further, then I would be in touch. I told them that the point of contact here at EPA was Chris Pilla, the Air Enforcement Section Branch Chief at 215-814-3438. I noted to their attorney that our legal point of contact was Bob Smolski and he could be reached at the EPA toll free number of 800-352-1973. I thanked The Alloy Steam Station of Elkem Metals Facility for their hospitality and we departed the site at about 2:30 pm. However, we did make a brief examination of both the Glen Ferris and Hawk Nest Hydro facilities, which were several miles down the road on Route 60 South. A photo of each of these facilities is included as photographs 19 through 21.

Attachments

A. Photographs of inspection of 8/21/02
B. Photo Log of inspection of 8/21/02
C. EPA Request for Information letter of 7/17/02

Photo Log for Inspection of Elkem Metals Steam Plant, Alloy, WV- August 21, 2002

All Photos Taken By James W. Hagedorn, U.S. Environmental Protection Agency Region III.

Photo #1= Elkem Furnace Building Roof Monitor (Taken Outside Day Prior to Inspection on Tuesday, August 20, 2002)

Photo #2= Elkem Furnace Building Roof Monitor- Same as above

Photo #3= Elkem Furnace Building Roof Monitor- Same as above

All photos taken after this point were done on Wednesday, August 21, 2002

Photo #4= #15 Melting Furnace Baghouse

Photo #5= Sulfur Dioxide Tanks for ESP Inlet Gas Conditioning

Photo #6= Primary Crusher Building for Coal Fuel Preparation

Photo #7= Secondary Crusher Building for Coal Fuel Preparation

Photo #8= Primary Crusher Located Below Street Level

Photo #9= Air Cooler for Furnace Exhaust Gas Going to Baghouse and Step Up Transformer

Photo #10= #3 Steam Turbine

Photo #11= #3 Steam Turbine (Long View)

Photo #12= Reverse Osmosis Boiler Feedwater Treatment Equipment

Photo #13= Pulverizers for Coal Fuel

Photo #14= Boiler Bottom Ash Settling Pond

Photo #15= Switching Station Control Room

Photo #16= Boiler Control Room

Photo #17= Boiler Flame View port on Side of Boiler #4

Photo #18= Bottom View of Electrostatic Precipitator for #4 Boiler Particulate Control

ATTACHMENT B

Elkem Steam Station Inspection Photographs - August 21, 2002 , Continued

Photo #19 and #20= Hawk's Nest Hydroelectric Station

Photo # 21 = Glen Ferris Hydroelectric Station

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

JUL 17 2002

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Talmadge Hagger
Environmental Manager
Alloy Steam Station of Elkem Metals Company
Route 60 East
Alloy, WV 25002-0613

The United States Environmental Protection Agency (EPA) is notifying Alloy Steam Station that EPA has tentatively scheduled an inspection of your facility in Alloy, WV on August 21, 2002 to determine your compliance with the Clean Air Act ("the Act"), 42 U.S.C. § 7401 et seq. and the regulations promulgated there under including, 40 C.F.R. Part 51 Subpart I, Review of New Sources and Modifications, 40 C.F.R. Part 52, Prevention of Significant Deterioration, and 40 C.F.R. Part 72, Acid Rain Provisions. Section 114 of the Act, 42 U.S.C. § 7414, authorizes EPA to conduct these inspections.

EPA requests that Alloy Steam Station have certain information available to EPA to review at the time of the inspection, as follows:

1. A process flow diagram and a site plan for the Alloy Steam Station Facility showing air emission points and associated air emission control equipment.

2. Have personnel available to discuss the description of the electric and steam generation, if applicable, at the Alloy Steam Station from introduction of raw material sequentially through to disposition of products.

3. Since 1990, have information available regarding Alloy Steam Station that shows:

   a. Amount of electricity produced (in megawatt-hours-MWH)
   b. Amount of steam produced for resale (in lbs/hr) or for use at the facility (in lbs/hr), if applicable
   c. BTU content of steam (btu/lb), if applicable
   d. Annual hours of operation of the boilers and electric generators
   e. Annual heat input into the boilers to generate electricity (in millions of BTUs)

ATTACHMENT C

4. For each combustion source at Alloy Steam Station, have available, since 1990:

a. Type of fuel combusted (i.e., Natural Gas, Oil, Coal, Tires, Waste Oil, Other);
b. Quantity of each fuel (for coal and wood-Mass in Tons, Tires-Number of tires etc.) combusted;
c. Fuel sulfur and nitrogen content in weight percent for each and all fuels.
d. Heating Value (in BTU's/lb) of each type of fuel.
e. Density of each type of fuel used (lbs/gal, etc.).
f. Amount of additives used in the electrical generating process (such as limestone or ammonia) in tons
g. Mass of ash or dust produced annually

5. Records of all stack tests conducted at Alloy Steam Station and records of all quarterly emission summaries of all pollutants based on continuous emission and/or opacity monitoring data at the facility since 1990. Also have available all annual air emission reports.

6. All plan approvals, air permits, and air permit applications since 1990 for Alloy Steam Station.

7. Feasibility or engineering studies conducted at Alloy Steam Station since 1990 regarding present and future production potential as a whole or for any individual process unit or pieces of equipment, including both existing equipment and new construction.

8. Information regarding capital projects accomplished at Alloy Steam Station since 1990 that were charged to capital cost accounts that exceeded $25,000.

9. Information about the rated (by manufacturer) peak and sustained capacity, pressure and temperature of each boiler (in pounds per hour) at Alloy Steam Station as well as the date of installation. Also have information about the rated (by manufacturer) peak and sustained electric generation capacity (in megawatt-hours) of each turbine or other electric generator. This should include both the gross generating capacity and the net generating capacity (which allows for electricity usage to run the facility).

10. Information regarding the operation of any coal or fuel preparatory plant at Alloy Steam Station and its capacity in tons/hr as well as the source(s) of your fuel(s).

11. Please have information available as to who is supplied steam or hot water from Alloy Steam Station and the business arrangement in which steam or hot water is sold, if any.

12. Please have available any and all certification documents and the associated application documents related to Alloy Steam Station's certification as a "Qualifying Facility", an "Independent Power Production Facility", or a "Cogeneration Unit" or facility as defined in 40 C.F.R. 72.2 (Acid Rain Regulations), if applicable. Also have available a copy of your Power Purchaser Agreement.

13. Please have information available related to the relationship between the operator of the Alloy Steam Station and the owner/owners of Alloy Steam Station.

14. Please have the certification documents available showing that Alloy Steam Station is operating in conformance with its Title V permit, if applicable.

If you have any questions concerning the upcoming inspection or this correspondence, please contact Mr. Jerry Curtin of my staff at (215) 814-3171.

Sincerely,

Christopher B. Pilla

Christopher B. Pilla, Chief
Air Enforcement Section

cc: Jesse Adkins, WVDEP

FIM 11/14/97

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November 14, 1997

Karen Watson, Esquire
Office of Air Quality
1615 Washington Street, E.
Charleston, West Virginia 25311-2599

VIA FACSIMILE 558-1222

Mr. Thomas Zerbe
Office of Legal Services
1356 Hansford Street
Charleston, West Virginia 25301

VIA FACSIMILE 558-4255

RE: Negotiation of Appeal
Office of Air Quality Permit R13-2091
Elkem Metals Company

Dear Ms. Watson and Mr. Zerbe:

The following is Elkem Metal Company's ("Elkem") second settlement proposal to the Office of Air Quality, ("OAQ") incorporating the issues we discussed in our conference call of November 7, 1997. For consistency, I have utilized the same format as the previous settlement language, although many of the issues overlap since we are combining what originally were several issues into just a few concerning emission limitations and the method for demonstrating compliance therewith. This information should enable us to proceed to settlement expeditiously in our conference call of Monday, November 17th at 10:00 a.m.

- Appeal Issue 1--Specific Requirement A.1.
- Appeal Issue 2--Specific Requirement A.2.
- Appeal Issue 7--Specific Requirement A.8.

The foregoing requirements will be deleted and replaced by language requiring demonstration of compliance with the emission limitations in specific Requirement A4 for both

the hourly and TPY emission limitations for Particulate Matter (PM) and PM10.[1] Ms. McKeone proposed during our telephone conference that in order to accommodate the deletion of permit conditions 5 and 6 -- the fugitive emissions from emission point ID#s 026 and 027 -- that the limitations in A.4 for particulate matter would be revised for PM to 29.2 lb/hr and 128 TPY and for PM10 to 25 lb/r and 109.5 TPY. As demonstrated in the calculations provided by Mr. Moretti on May 9, 1997, the net emission reductions were more than sufficient to meet the exclusion for PSD review. However, we found Ms. McKeone's suggestion to account for the emissions in the permit interesting. The limitations necessary for the purpose of maintaining the total PM and PM10 TPY levels below the regulatory PSD threshold, with a considerable margin of "safety" would be for PM 35.9 lb/hr and 157 TPY and for PM10 30.9 lb/hr and 135 TPY (with the deletion of conditions A.5 and A.6, of course.) Elkem is willing, assuming that the compliance demonstration proposed herein is accepted, to drop its appeal of at the hourly PM and PM10 limitations with the foregoing revision.

Hourly PM and PM10 limitations will be verified by stack testing. The stack testing protocol for all parameters, is set forth in Attachment A hereto.

> "***Within 180 days of commencing operation, this facility shall conduct, or have conducted, an emission test(s) for this source at normal operating rates in order to demonstrate compliance with the hourly mass emission rates for PM and PM-10 and to verify the emissions estimates for lead. The emission test(s) shall be conducted in accordance with the test methods and procedures specified in Attachment A[2] hereto. Thereafter, Elkem will demonstrate compliance with the hourly mass emission rates for PM and PM-10 by measuring or monitoring the following parameters:***
>
> - ***the pressure drop across the main baghouse which controls charging, smelting, and tapping emissions from EAF 15. Elkem will establish the pressure drop range within which compliance with the hourly emission rates may be assumed. Elkem will monitor and record the average daily baghouse pressure drop to ensure that the baghouse is operating within the acceptable pressure drop range.***
> - ***the air flowrate within the tapping hood ductwork for EAF 15. A flow meter shall be installed in the ductwork to measure the flowrates. The procedures to***

---

[1]Note in regard to Appeal Issue 3 that emission limitations for CO, NO_x, SO2, and VOC will be deleted with inclusion of suggested permit condition.

[2]Note that "Attachment A" is not provided with this letter. If OAQ is agreeable to the approach articulated herein, Elkem will propose a stack testing protocol to be incorporated into the revisions to the permit as part of the settlement of the appeal.

assure proper calibration and operation of the flow meters in accord with manufacturers specifications are set forth in Attachment B hereto and will be available for review by OAQ inspectors.

This same methodology will be utilized to verify continuing achievement of the emission rates used in making the PSD determination for furnaces 3, 6, 7 and 14. This is sufficient for creditable emission reductions; no stack testing will be conducted for furnaces 3, 6, 7 and 14

Annual emission limitations will be demonstrated by the following engineering calculation:

Z = A lb product/day x B days/yr x C lb PM (or PM-10)/ton product x 1 ton product/2,000 lb product x 1 ton PM (or PM-10)/2,000 lb PM (or PM-10)

where:
Z = PM (or PM-10) emissions, in tons/year
A = amount of product produced per day, in pounds
B = number of operating days per year
C = emission factors (PM and PM-10) as submitted with the permit application dated January 1997 or equivalent emission factor if approved by WVOAQ

Elkem will not agree to continuous opacity monitoring for furnace 15 -- it is not currently required in the Permit. Compliance with opacity for furnace 15 will be based upon continuous pressure drop recording and daily inspection records of visual observations (not formal VE reading) in order to satisfy the requirement of 45 CSR 7 §4.8 utilizing the mass emission rates for duplicate sources.

- Appeal Issue 3. Specific Requirement A. 4:

The emission limitations for CO, NO_x, SO2 and VOC, will be deleted and Elkem will agree to a permit condition stating that:

"Based on information submitted by Elkem (see attached Table 1) that the estimated emissions of CO will not exceed 0.12 lb/hr or 0.55 tons/yr, NOX, will not exceed 0.32 lb/hr or 1 ton/yr, SO_2 will not exceed 0.22 lb/hr or 1 ton/yr, and VOC will not exceed 0.35 lb/hr or 1.5 tons/yr, OAQ considers these amounts to be de minimus and is not imposing permit conditions. If modifications should be made which increase such CO NO_x, SO2 or VOC emissions over the foregoing stated values by more than 2 lbs/hr or 5 tons/yr, Elkem will submit data for a permit modification determination pursuant to 45 CSR 13."

The emission limitations for lead will be revised per the attached information calculated by Mr. Moretti , to 0.023 lb/hr and 0.1 TPY. Compliance with these limitations will be based upon the stack test conducted in accordance with the protocol in Attachment A.

In response to the OAQ's request to provide some further verification of the estimated CO de minimus emissions:

> ***"As per our previous discussions concerning combustion of CO, Elkem has conducted further research and concludes that CO emissions from an open furnace combusts as per the equation 2CO + Heat + O_2 = >2CO_2. In an open EAF, oxygen is induced into the furnace, where it converts CO into CO_2 under high temperature conditions. Therefore, Elkem believes that CO en issions from the furnace are de minimus and testing is not warranted."***

- Issues 4 and 5: Specific Requirements A.5 and A.6.

These requirements will be deleted see discussion on Appeals issues 1, 2 and 7 supra.

- Issue 6: Specific Requirement A. 7

The language will be revised to read:

> ***"During all tapping operations fans and hoods will be operated to assure maximum feasible capture of emissions ."***

- Issue 8: B 2-21

NSPS is not applicable. The stack test conducted at normal operation rates and the method of flow rate verification are provided above, in lieu of the specific NSPS provisions incorporated in B2 through B21, for purposes of 45 CSR 7 compliance demonstration.

- Issue 13: Permit condition C. 3 will be revised to state:

> ***"The permittee will assume responsibility for the modification and operation of EAF 15 in accordance with the plans and specifications submitted with the permit application dated January 1997, which plans and specifications are _____."***

These issues should provide the framework for our telephone conference on Monday.

Sincerely,

BARBARA D. LITTLE

CHASFS2:111197

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ATTORNEYS AT LAW
1600 LAIDLEY TOWER
P. O. BOX 553
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November 25, 1997

Tom Zerbe, Esq.
Office of Legal Services
1356 Hansford Street
Charleston, WV 25301

VIA FACSIMILE (304) 558-4255

Beverly McKeone
Office of Air Quality
1558 Washington St., E.
Charleston, WV 25311-2599

VIA FACSIMILE TO (304) 558-1222

Re: Elkem Metals Company, Appel
Chief, Office of Air Quali
Environmental Prote
Appeal No. 97-4-AQ

Dear Mr. Zerbe and Ms. McKeone:

Please find enclosed my draft lett presenting the status of the settlement negotiations in the ab to the best of my understanding. Elkem has not had an opportunity to . and, therefore, like all of our settlement negotiations, statements made therein . ing obligations, but are good faith representations of our understanding of the progre settlement on the appealed issues. Please call me as soon as possible if you perceive any significant misunderstanding of our agreement or lack thereof. Please leave a phone mail message if I am not immediately available.

Sincerely

Barbara D. Little

Barbara D. Little

Hand Delivered 11/25/97

JACKSON & KELLY
ATTORNEYS AT LAW
1600 LAIDLEY TOWER
P. O. BOX 553
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November 25, 1997

Rebecca Charles, Esq.
Legal Counsel
Air Quality Board
1615 Washington Street, East
Suite 301
Charleston, WV 25311-2126

VIA HAND DELIVERY

Ms. Margaret Chico-Eddy
Clerk of the Boards
1615 Wash ngton Street, East
Suite 301
Charleston, West Virginia 25311

VIA HAND DELIVERY

Re: Elkem Metals Company, Appellant v. Chief, Office of Air Quality, Division of Environmental Protection, Appellee Appeal No. 97-4-AQB

Dear Mesdames Charles and Chico-Eddy:

After several hours of good faith negotiation with representatives of the Office of Air Quality, significant progress has been made toward settlement. The following is a general summary of the status of agreement as to each of the issues on appeal.

- Appeal Issues 1, 2 and 7--(Specific Requirements A.1, A.2 and A.8): There is conceptual agreement that in lieu of the current permit limitations on production factors, a protocol for demonstrating compliance with the emission limitations in the permit can be negotiated which will involve stack testing to verify hourly emissions, during which stack test, operating conditions for utilization in parametric monitoring will be identified to assure that emission limitations in the permit are quantifiable, permanent and practicably enforceable.

- Appeal Issue 3 Specific Requirement A. 4: The emission limitations for CO, NO_x, SO2 and VOC, will be deleted. The verification required for CO emissions is still being negotiated. The inclusion of an emission limitation for lead has been agreed to, but the level of that limitation is still being negotiated.

- Appeal Issues 4 and 5; Specific Requirements A.5 and A.6: These requirements will be deleted. The agency is proposing general work practice requirements to address fugitive emissions.

- Appeal Issue 6; Specific Requirement A. 7: The legal/regulatory issues have been resolved and the technical representatives are negotiating the specific wording to be included in the permit; agreement in regard to such wording is expected.

- Appeal Issue 8; Permit Cond. B 2-21: According to preliminary information obtained by the OAQ from EPA, NSPS is not applicable. OAQ and Elkem technical representatives are negotiating the type of operating data relating to emission levels and controls, which will be maintained in order to verify compliance with the particulate emission standards of 45 CSR 7.

- Appeal Issue 9; Permit Cond. B.22: Agreement has been reached that this section will address the specific applicability of 45 CSR 7 §4.8; the language reflecting the applicability of 4.8 must still be negotiated.

- Appeal Issue 10; Permit Cond. B.23: This is a specific requirement of NSPS which is not applicable and will be deleted.

- Appeal Issue 11; Permit Cond. B. 24 redundant of C. 4.: Wording has been agreed to which resolves redundancy.

- Appeal Issue 12; Permit Cond. B25: Reference to Regulation 13 will be omitted.

- Appeal Issue 13; Permit Cond. C.3, incorporating Permit Application R13-2091: Tentative agreement has been reached to revise the permit language to reflect the language of 45 CSR 13 referring to "plans and specifications." Negotiations are continuing as to whether specific permit pages containing "plans and specifications" for Elkem will be identified.

- Appeal Issue 14; Permit Cond. C. 5, requiring notification of suspension of operations has not been settled.

- Appeal Issue 15; Request for inclusion of General Requirement: "Compliance with terms and conditions contained in the Permit . . .", has been settled contingent on Agreement on Issue 9.

Given the substantial progress to date toward issue resolution, Elkem believes further negotiation is warranted to attempt to reach settlement on all issues on appeal and requests that the hearing currently scheduled for December 11, 1997 be continued. Elkem is committed to expeditiously proceed with negotiation with the ideal resolution of presenting an agreed order to the Board.

Sincerely,

Barbara D. Little

BARBARA D. LITTLE

CHASFS2:102995

cc: Tom Zerbe, Esq.
Karen Watson, Esq.
Beverly McKeone
Talmadge Hager, Elkem
Ed Moretti, Baker Environmental

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DRAFT

November 25, 1997

Rebecca Charles, Esq
Legal Counsel
Air Quality Board
1615 Washington Street, East
Suite 301
Charleston, WV 25311-2126

Ms. Margaret Chico-Eddy
Clerk of the Boards
1615 Washington Street, East
Suite 301
Charleston, West Virginia 25311

Re: Elkem Metals Company, Appellant v. Chief, Office of Air Quality, Division of Environmental Protection, Appellee
Appeal No. 97-4-AQB

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Sincerely,

BARBARA D. LITTLE

CHASFS2:102995

cc: Tom Zerbe, Esq.
Karen Watson, Esq.
Beverly McKeone
Talmadge Hager, Elkem
Ed Moretti, Baker Environmental

DIVISION OF ENVIRONMENTAL PROTECTION

CECIL H. UNDERWOOD
GOVERNOR

1356 Hansford Street
Charleston, WV 25301-1401

JOHN E. CAFFREY
DIRECTOR

December 16, 1997

Barbara Little, Esquire
Jackson & Kelly
1600 Laidley Tower
500 Lee Street, East
Charleston, West Virginia 25301

Re: Elkem Metals Company

Dear Ms. Little:

In order to facilitate discussion, Beverly McKeone and Dale Farley have written a draft new permit which is enclosed. They have attempted to include the agreed language changes. Since we have tentatively conceded that NSPS does not apply, changes have also been made to capture what the Office of Air Quality believes is required by Regulation 7.

Please understand that this is not a proposed permit. Not only do we want input from your client, but we are still in the process of making decisions and reserve the right to make changes in this tentative proposed permit. It is being sent to you prior to finalization in order to get as early a start as possible on discussions between the Office of Air Quality and your client.

We anticipate that there may be changes made in paragraphs A2, A4 and A6. In paragraphs A2 the baghouse numbers might not be correct. In paragraph A4, the proposed emission limits for PM and PM_{10} may be changed based on new calculations being done by Beverly McKeone and Ed Morretti. The type of changes the agency is considering making to paragraph A6 are indicated in a comment paragraph below paragraph A6 in the draft permit. Other possible changes may also be considered based either on your client's response or on the agency's on-going internal review.

Office of Legal Services
Telephone: (304) 558-9160 Fax: (304) 558-4255

We look forward to your response.

Very truly yours,

Thomas H. Zerbe
Assistant Chief

THZ/ld

cc: Terry Polen
Karen Watson
Dale Farley
Beverly McKeone

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

In Reply Refer To: 3AT13

MAR 27 1997

Ms. Beverly D. McKeone, Permit Engineer
State of West Virginia
Division of Environmental Protection
Office of Air Quality
1558 Washington Street East
Charleston, West Virginia 25311-2599

FILE
COMPANY Elkem Metals Co.
FACILITY
REGION 4 REG. 13-2094

Re: February 6, 1997 letter on NSPS Subpart Z

Dear Ms. McKeone:

The Air Division of EPA-Region III received and reviewed your letter, dated February 6, 1997, in regard to the NSPS Subpart Z requirements and their applicability to the reactivation of a submerged arc furnace at the Elkem Metals facility in Alloy, West Virginia which had been inactive for a period of sixteen (16) years. According to your letter, the Company has made numerous changes at the plant, one of which is a transformer upgrade for this electric furnace from 17 Megawatts to 30 Megawatts. This will also result in a production rate increase at this particular furnace and an emission rate increase of particulate matter as well.

When determining whether a "modification" has occurred at an existing facility which would make the existing facility now an affected facility for purposes of the Subpart Z regulations, the definition of "modification" must be considered. Under 40 CFR Part 60, Subpart A, Section 60.14, a modification occurs whenever a physical change or change in the method of operation occurs at an existing facility which increases the emission rate of a pollutant to which a standard applies. Now there are several exemptions listed under Section 60.14 to the definition of a modification. One of these exemptions is a production rate increase, which could be anticipated to result in an emission rate increase, where the production rate increase can be accomplished without the need for a capital expenditure. The definition of "capital expenditure" in this instance is given as, "an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable annual asset guideline repair allowance percentage.... and the existing facility's basis....." Based on research conducted by Region III and Headquarters staff, the percentage to be used in this instance in the ferroalloy industry is eight (8) percent. The cost of the transformer change can be included in the cost analysis for determining whether a "capital expenditure" has been made as this was specifically mentioned in regard to potential modification scenarios in the Background Information Document for Standards of Performance for Ferroalloys, dated October, 1974 (EPA 450/2-74-018a) on page 111 as you correctly pointed out. The BID specifically states, "Modifications to a ferroalloy furnace which could render the

facility subject to standards of performance are changes in raw materials which force physical alterations to the furnace, changes in product grades or "families" which increase emissions, and increasing the transformer capacity to increase production (hence emission) rates".

The assertion from Elkem Metals that Subpart Z does not apply based on the two Edward Reich memorandums written in 1979 is erroneous in that, based on HQ research of determinations made during this time period, these memorandums were not written in regard to Subpart Z but Subpart AA, instead, for the iron and steel industry. When Subpart AA was revised, it now also reflects the fact that the transformer is crucial to the emission rate and can be included in the cost analysis for determination of modification just as Subpart Z has always done.

I hope that this letter provides the necessary clarification of your issue and should you have any additional questions or comments, do not hesitate to contact me at (215) 566-2158 or James W. Hagedorn, of my staff, at (215) 566-2161.

Sincerely,

David B. McGuigan, Ph.D., Chief
Air Enforcement Section

cc: Jane Engert, OECA

Control Number: 9900058

Category: NSPS
Region: Region 3
Date: 12/16/1997
Title: Capital Expenditure Valuation to Determine Modification
Recipient: Thomas H. Zerbe
Author: David B. McGuigan
Comments:

Subparts: Part 60 A General Provisions
Part 60 Z Ferroalloy Production Plants
References: 60.14

Abstract:

Q: Is the IRS annual asset guideline repair allowance percentage of 18% the value to be used for determining whether a capital expenditure was made under the NSPS definition of "modification?"

A: Yes.

Letter:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

In Reply Refer to: 3AP13

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Thomas H. Zerbe
Assistant Chief
Office of Legal Services
Division of Environmental Protection
1356 Hansford Street
Charleston, West Virginia 25301-1401

Re: November 13, 1997 Letter

Dear Mr. Zerbe:

You are correct in your statement that the IRS Publication 534 specifies an annual asset guideline repair allowance percentage of 18% and this is the value to be used for determining whether a "capital expenditure" was made by a Company for purposes of the definition of "modification" under the New Source Performance Standards (NSPS) program for the ferroalloy industry. We apologize for any confusion that was raised in this matter.

If you should have any further comments or questions on this, or any other, NSPS issue, do not hesitate to contact me, at (215) 566-2158 or James W. Hagedorn, of my staff, at (215) 566-2161. We appreciate your raising NSPS issues to EPA so that national consistency can be maintained.

Sincerely,

David B. McGuigan, Ph.D., Chief Air Enforcement Section

cc: Jane Engert, OECA

=

Control Number: 9700109

Category: NSPS
Region: Region 3
Date: 03/27/1997
Title: Subpart Z Modification Determination
Recipient: McKeone, Beverly
Author: McGuigan, David B.
Comments:

Subparts: Part 60 A General Provisions
Part 60 Z Ferroalloy Production Plants
References: 60.14

Abstract:

Q: Has a modification occurred at Elkem Metals based on physical changes made at their ferroalloy furnace, including increasing transformer capacity?

A: The State must look at whether an emission rate increase occurred and whether a "capital expenditure" has been made as this term is defined using an 8% value for the annual asset guideline allowance percentage in this instance. Transformer costs can also be included in this determination for "capital expenditure" under Subpart Z.

Letter:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

In Reply Refer To: 3AT13

Ms. Beverly D. McKeone, Permit Engineer
State of West Virginia
Division of Environmental Protection
Office of Air Quality
1558 Washington Street East
Charleston, West Virginia 25311-2599

Re: February 6, 1997 letter on NSPS Subpart Z

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I hope that this letter provides the necessary

clarification of your issue and should you have any additional questions or comments, do not hesitate to contact me at (215) 566-2158 or James W. Hagedorn, of my staff, at (215) 566-2161.

Sincerely,

David B. McGuigan, Ph.D., Chief Air Enforcement Section

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